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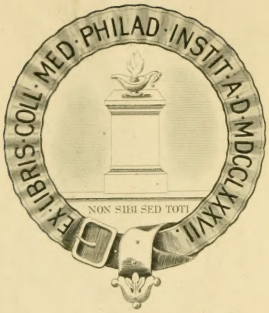

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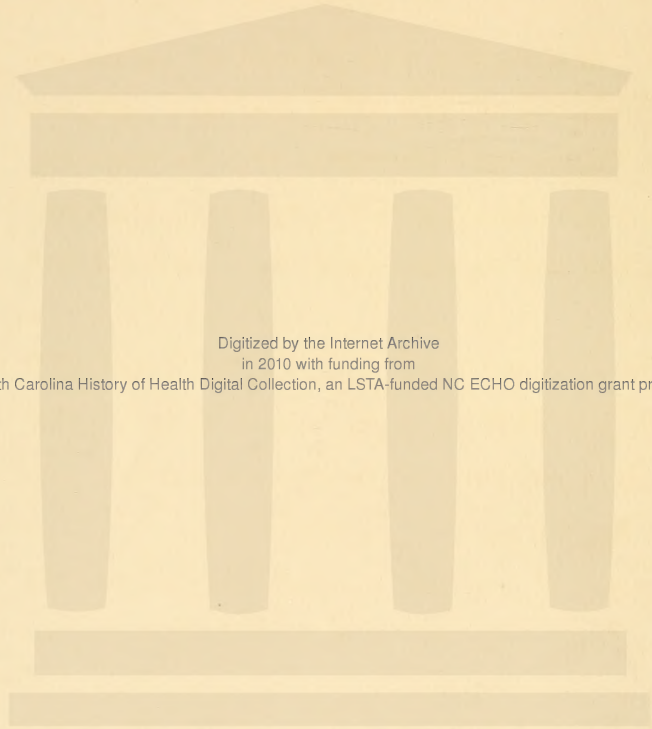

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Table of Contents, Page 51.

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VOL. XXXII CHARLOTTE, N. C., JANUARY, 1908. No. 1

State Maintenance for Epileptics.

By T. P. Satterwhite, M. D., Louisville, Kentucky.

The question of making some special provision by the State for the care of epileptics cannot be too strongly urged. It is gratifying to note increased interest shown in the public care of them. There are at the present time over nineteen States that have made provisions for them. The first important thing to do in an effort to establish any public charity, is to get people interested in it, and appreciate its benefits. The number of unfortunates who suffer from this disease is estimated at one to every three thousand of the inhabitants, and a large proportion of these are feeders for various eleemosynary institutions. All asylum men know that there are a large number of epileptics in every insane asylum, which ought to be provided for separately. The Colony System for epileptics has been clearly demonstrated. It is a disease that does not shorten the duration of life, and the expense for maintenance for many years is large. Whereas if the proper environment was provided for them, these persons could aid very materially toward their own support. Is it not as much the duty of the State to lighten the burden of misery for a class afflicted with one of the dreadful diseases that humanity has to bear, as it is to provide for their sustenance and protection from the elements. The dietary of the epileptics is simpler than the other class of patients, so that almost everything in the way of food stuffs can be provided by the labor of the colonists. Further, colony life opens up to them all that is worth living for,—occupation, education, amusement and association. The members are bound together by a common affliction, and each one can feel the equal of his associates. These things alone have clearly done more for the epileptic than medicine can ever hope to do, and this herding of epileptics, imbeciles and demented people, I hope, will soon cease to be a blot on our State. The pathological features of the insane and the epileptic are different, and the treatment also. A great proportion of the epileptics acquire the habit before the age of twenty years. The young grow up in ignorance, for they are debarred from going to school, and it is estimated that 10 per cent. of epileptics become insane when left uncared for. There are a large number of adult epileptics who are able to work and be self supporting, but whose seizures prevent their employment, for no one would employ them. Naturally a life of this kind closes to them the usual avenues for mental and moral development, and it is because of this neglect that so many epileptics grow up feeble minded and ignorant, and an easy prey to all of the degenerative tendencies. Gowers, one of the leading neurologists, states that heredity is one of the most powerful and important causes that produces epilepsy, and that there is a family history of epilepsy in twenty-seven% cases, while other writers place the rate much higher. Cannot this sequestration prevent, so far as the colony is concerned, the propagation of epilepsy. Just contrast the deleterious condition of the epileptic outside of colony life, with the healthful, industrial life of the colony. He is with his fellows, no longer a semi-outcast of society, is bound to associates by a common affliction and has a common purpose with them. He appreciates the opportunity for occupation, education, treatment and general physical and mental development which these institutions offer, Further that the State and society may be enlightened by the investigation of epilepsy, and to infuse such a knowledge as to the nature and prevention of this disease, an article from the American Medicine on labor as a therapeutic agent, says: "Labor as a therapeutic agent in asylums is not a new idea,. and there can be no doubt that its value is insufficiently oppreciated, and if compulsion of hardship is not made a means of securing it, they should be induced to do some work, for nothing can be more certain than the fact that idleness, whether enforced or chosen, is destructive of both mental and physical health. Nothing is more cruel and pathogenic than the sickening donothingism of the patients in many of our sanitariums and asylums. The testimony of superintendents who have tried this plan is unanimous that in the epileptic and insane labor is a positive therapeutic value. Do they not appeal to us all? Incapable of self-support outside of colony life, but able to assist in supporting themselves under colony management. Superintendents of insane asylums recognize that there is nothing in common between the lunatic and the epileptic, and our asylums have many of them, for they have no other place to go, and they are the source of the greatest anxiety regarding their management and control. Dr. Evans writes: "Many epileptics become inmates of prison cells, and the courts are forced to hold such criminals irresponsible. This affliction is not a vice,

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and should not be neglected, so as to thwart all efforts at relief." He says in conclusion, the victims of epilepsy ought to have legal ground for suit against the community as well as those who have charge of the epileptics. Dr. J. W. Wherry in his experiment in regard to convulsive seizures of epileptics, recorded a tabulated statement in isolating seven epileptics from the insane. In 1901 he isolated seven cases. Their convulsive seizures were one hundred and eighty-one a month. At the end of twelve months they numbered seventy. The second year the seizures numbered fifteen. The explanation of the improvement was, they had the proper care and treatment, and it is known and cannot be emphasized too clearly, that the commingling of the two classes of disease is the cause of many becoming insane. The segregation of epileptics will be of incalculable value for investigation in phychiatry. This investigation is an education for the physician. The patients under their care reap the benefits of better diagnosis and expert treatment, and where he may find opportunities to turn to useful account the faculties which the disease has not already impaired, and where he may find encouragement in the thought that all that science and philanthropy can do to cure him, is applied for his benefit. Let us urge, therefore, that common fairness seems to demand an equality of care of the epileptic as the insane, and which can only be secured by State maintenance.

Malignant Diseases of the Stomach, Diagnosis in Early Stages.*

By Dr. M. J. Payne, Staunton, Virginia.

In the diagnosis of malignant diseases of the stomach, abdominal surgery has imposed upon the internest, the general practitioners, new and important duties. First, the diagnosis must be made early, that is, before the appearance of a tumor, hemorrhage or cachexia. Must be made accurately as to locations, whether at the pylorus, lesser curvature or cardia, whether localized or generalized, and whether complications exist or not. Hospital physicians, consulting physicians, specialists of stomach diseases, as a rule, do not see malignant diseases of the stomach in the early stage. Many cases do not consult any physician until the advance stage, treating themselves by some so-called stomach medicine or inert mineral water, and receiving no benefit, often harm; come to the physician after hemorrhage or cachexia have appeared. While many pass from one physician to another, receiving only a hurried examination and hasty advice, till the onset of the later symptoms or complications lead the physician to examine the stomach. In other words delay is made in the diagnosis until the classic picture is complete in every detail. A diagnosis made after the appearance of a tumor, hemorrhage and cachexia is of no more practical importance to the patient than a diagnosis made at the autopsy.

To my mind much would be gained by classing hemorrhage and cachexia as complications, rather than symptoms, for one may be forcibly struck with the importance usually ascribed to these two symptoms, when listening to long discussions in the consulting room, as to the probable benign nature of some tumor of the gastric regions not yet attended by hemorrhage or cachexia. It seems that the average practitioner is very reluctant to make a diagnosis of malignancy of the stomach until hemorrhage and cachexia are present.

In point of frequency the stomach stands second to the uterus, and in the male first. The male appears also to be affected more often than the female. While no age is entirely exempt, it is more common after forty and increases rapidly after fifty. Race does not, as formerly thought, appear to confer any special immunity.

The symptoms of all malignant new growths of the stomach are substantially alike, therefore in the present paper no attempt will be made to differentiate clinically the several forms. While adeno-carcinoma is the more frequent form observed, sarcoma undoubtedly occurs. In examining the patient it will be observed that he is past forty—that till the present complaint he has been unusually well, and has not had any gastric complaint. He has been accustomed to eat any and everything, usually taken, and digest it. The history may reveal hereditary or association with a cancer case. Formerly the appetite has been good, now it is poor, or entirely lost. Anorexia (without an assignable cause) is a very important early symptom. There is disgust for food, principally meats. Articles of food formerly liked are now distasteful, e.g., tobacco, wines, liquors, etc., have lost their tempting qualities. Coincident with the loss of appetite, loss of weight and loss of strength out of all proportion to the emaciation will be observed. Disgust for food is so marked that it is with difficulty that nourishment is given. On taking food a sense of fullness or bloating, amounting even to distress, is usually noticed, possibly eructations, and some slight nausea. Therefore, it is true that the onset is obscure, indefinite, the symptoms as related by the patient appear to him as trivial, there is no strikingly clear condition to account for the rapid decline in health, yet the very fact

*Read before the Medical Society of Virginia.

that the man is ill of some serious malady impresses itself upon the physician. It is this very point that demands one's attention. This somewhat typical onset is so slightly characteristic to the patient and his family that malignancy is not at first thought of, therefore I wish to emphasize the importance in just such cases, that the physician should think of malignant new growth of the stomach, and begin to observe the case from this point of view, till satisfied as to the proper diagnosis.

Two symptoms of special importance demands now some attention.

First Pain.—At first, or early pain is not a prominent symptom. Indeed, it may never reach so intense a degree as to warrant the use of opiates. Visceral cancer is not as painful as text books lead one to think. When present in the early stage it is described more as burning, reference being made somewhat definitely to the particular area of pain. As a rule pain is independent to taking food, and is often relieved by taking hot water, tea, coffee, etc., it, however, when attended by vomiting, is never relieved by the act of vomiting as in ulcerations. A peculiar symptom in some cases, and described by the more intelligent, is that of a grating sensation, as if the walls of the stomach were being rubbed together' Pain may at times be felt in the back-especially when the lesser curvature is involved, but is not characteristic. Tenderness over the painful area has in my experience occurred in all cases. Nausea at irregular intervals appears early, and may or may not be attended by vomiting. Vomiting may be entirely absent throughout the entire course of the disease, even to the last, as for example: when the pylorus is unaffected. However, when present the act is frequent, the food often being vomited unchanged, and portions of food taken many hours previously may be vomited. The quantity expelled is often apparently greatly in excess of that taken, due to fermentation or putrefaction. Particles of the cancer tissue, blood and pus may likewise be found in the substance vomited. Constipation is the rule, even in those previously not so affected.

Observe carefully the weight, preferably have the patient weighed in your presence. Keep a weight record.

Direct now that the patient remove the clothing, and it will be observed that the emaciation is more marked from the hip line upward, and that the trunk is more affected than the limbs. The subcutaneous fat is absorbed, the skin hangs in folds, and on pinching up a fold of the skin one may observe that the normal elasticity of the skin is greatly lessened or lost. The eyes are sunken, and the face often portrays an anxious, helpless expression. Depression of spirit, even to melancholia may be observed.

Examine now carefully the heart, lungs, and kidneys, and if found free of disease, a step of great importance in the diagnosis is made. Recall, however, that in the late stages of malignancy of the stomach albumen may be detected in the urine in large quantities; this should, however, not prove confusing. Next, and of great importance, is the inspection of the upper abdomen, taking care to have a good light and plenty of time. Observe carefully and compare the sides, watch closely for any fullness or undue prominence of either side, picture in your mind's eye the position of the stomach for often the outline of a tumor may be observed. Note carefully the left hypochondrium for any unusual prominence, any sudden prominence rising up from the surface. Kussmaul describes a peculiar relief or mound rising suddenly and prominently from the level of the abdomen, and after a brief time sinking again to a position of rest. This is spoken of as peristalic unrest of the stomach. Boas, however, describes the phenomena as a tonic contraction of the stomach which is localized. If the prominence be grasped with the hands when at its height a hard contracted mass, resembling the uterus, during the pain is observed. To this Boas applies the name —gastric rigidity. Fifty years ago Cruveilhier described this sign, and emphasized it as an early major diagnostic point. Pain and gurgling may attend the contraction. Gastric rigidity indicates an obstruction to the pyloric outlet. If a tumor be present it becomes more prominent during this contraction.

By auscultation of the gastric area, detect the presence of any new sound, gurgling or splashing, as a further evidence of the pyloric obstruction.

Determine now by palpation and percussion the area of the liver and spleen, observe if present any tender points and tender area, likewise observe the association of tender points and painful area. In palpating it is preferable first to have the stomach empty, and if possible determine the stomach area: may indicate this by pencil mark. Now distend the stomach and define borders as accurately as possible. Use preferably gas distentions. Observe whether the stomach is dilated or contracted, and determine if there is displacement of the viscus. In all cases of pyloric obstruction the stomach is actually dilated at first—however, in cancer of the cardia, lesser curvature, and aesophagus the viscus may be actually contracted, that is, after infiltration of the stomach

walls. Determine now the digestive efficiency, that is, whether or not the food is digested within the normal time. If the stomach contains food after seven hours there is inefficient digestive functions. Likewise observe if there is motor insufficiency.

The only practical way to determine this is by stomach washing, the technic of which does not enter into this paper. However, if particles of food be vomited, or removed by the stomach washing, from eight to twelve hours after eating, both digestive and motor functions are insufficient.

Let the stomach contents be tested now for free or uncombined hydrochloric acid. This test is now regarded as less positive than formerly. The free acid may be present in cancer, rarely and absent in conditions other than cancer. The absence of free hydrochloric acid with the presence of lactic acid and the Oppler bacillus is held to be more indicative of malignancy than the simple absence of free hydrochloric acid. If found that lactic acid is being generated in large quantities this alone is more conf clusive. (Found in about 83 per cent. o- all cases). The absence of hydrochloric acid and the presence of lactic acid is a condition when found early in the process of cancer of the stomach is of great importance, as will be presently understood. If the diagnosis is yet delayed the appearance of a tumor will admit of no further doubt as to the diagnosis, but all must now accept the statement that the early stage has passed. There is but little practical benefit to the patient to advise operative interference after the tumor is found. I was never more forcibly struck with the importance of this, than on recently discovering cancer of the stomach with a tumor, in a patient at his first visit to my office. I advised operation, to which he readily assented, and on opening the abdomen the entire stomach wall was seen to be involved, and the condition of affairs so extensive as to render any radical treatment not only useless but impracticable. It is likewise useless to advise operative interference after the advent of hemorrhage, as the appearance of this symptom in my experience is shortly followed by death. To advise operative procedure after cachexia has appeared is only to hasten the inevitable. I make reference to these symptoms only to emphasize that the usual classic symptoms enumerated in the text books are indicative only of the late—the hopeless stage.

In hope of stimulating the efforts of practitioners, not the specialist, I wish now to add that should a patient past forty come to consult you, and relate that he has been well till the present illness, that in obtaining the history you find an indefinite onset, a loss of appetite, a disgust for food, a distaste for meats, tobacco and liquor, great emaciation, and lost strength, that both the digestive and motor functions of the stomach are insufficient, that nausea, constipation and irregular inexplainable vomiting are present, that he complains of burning or indistinct pain unassociated with taking food, and you find on examination a tender point referable to the area of the pain, that on distending the stomach there is no marked dilatation, that the gastric condition is growing steadily worse, the heart, lungs and kidneys are found to be normal, and yet the patient appears as if he is a victim of some serious malady. I claim now that if ulceration, chronic gastritis and amyloid degeneration be excluded, a diagnosis of malignant disease of the stomach should be made.

Exclude ulcer by recalling that both the digestive and motor functions are normal, or even increased, that is digestion goes on more rapidly—the food is digested and the stomach empty within two hours. Free hydrochloric acid is normal or in excess. Pain is greater, more acute, and hemorrhages which is often alarming, recurs less frequently than in cancer, and improvement shortly takes place. Lost appetite does not occur with such frequency as in cancer, and the weight and strength are likewise not so markedly affected.

Exclude chronic gastritis, and only the graver forms are apt to be confusing, by the fact that the absence of free hydrochloric acid is early noted in cancer, and very late in chronic gastritis. That an inhibition of, or an inefficient digestive function appears early in carcinoma and late in chronic gastritis. Chronic gastritis never leads to complete loss of digestive functions, the reverse being true in malignant disease of the stomach. There is never cardialgia, or hemorrhage, never distinct or tender points in gastritis, the area of tenderness being diffused. In chronic gastritis the vomit or stomach washings show large quantities of mucus. The history of long standing dyspepsia, the absence of lactic acid and the Oppler bacillus, and the less striking blood changes are likewise indicative of chronic gastritis.

Exclude amyloid degeneration of the mucus membrane, (rare) by the fact that it is always secondary to tuberculosis, syphilis or prolonged suppuration.

Further, recall that malignant disease of the stomach does not pursue an extended course, for a case existing more than a year or a year and a half may safely be classed as non-malignant. I have not made reference to any metastalic changes in the liver, to glandular enlargement either of the left

supra-clavicular glands, or the peri or para umbilical glands, or to ascites, for any or all of these symptoms are indicative of the late stage.

While little may be promised except a somewhat extended life in the early stage, all operative work in the later stage but hastens the inevitable end. As a matter of interest and importance, likewise to stimulate early diagnosis, a partial gastrectomy, though showing a slightly higher immediate death rate, is attended in those cases recovering by a somewhat longer period of life, than the more commonly practiced gastro-enterostomy.

Gangrenous Kidney. Transperitoneal Nephrectomy; Recovery.

By Joseph Graham, M. D., and E. A. Abernathy, M. D., Durham, N. C.

One is rarely justified in making report of a single case, but as few men have the privilege of seeing a large number of these cases our conclusions must be made from individual reports.

Report of Dr. E. A. Abernathy.

Ula L.: Thirteen years old. Birth normal. Childhood without special incident. No disease bearing on condition under consideration.

Present History.—About one year ago patient was brought to me suffering with what I thought to be the beginning of menstruation. Complained of headaches, backaches, and indefinitely located pains in the "stomach." These "spells" came on at periods about four weeks apart and lasted several days, Since the present conditions have developed the mother says there were pains that might have been referred to the kidneys. I do not remember anything that led me to suspect kidney involvement. As the child was well developed and approaching the age when menstruation should begin I diagnosticated the trouble as an effort to establish this function. Iron, arsenic and manganese, together with proper hygienic measures were prescribed. This treatment was continued over a period of months and the menstrual function with some irregularities was established and I lost sight of the patient.

On June 3, 1907, was called to see her. Learned that four days before while in apparent good health, she had, when arising in the morning, complained of pain in right side of abdomen just above crest of ileum. This pain had become worse and had gradually extended over most of right abdominal region.

On examination: Patient lying on back with right thigh flexed; expression indicating severe pain. Temperature 104; pulse about 140, running and of poor volume. Muscles on right side of abdomen rigid; entire right side of abdomen tender with marked tenderness over McBurney's point. An area of dullness around region of appendix several inches across. Bowels had been thoroughly moved before I saw patient. Kidneys, as far as I could learn, were doing their work normally. No examination of urine was made.

A diagnosis of acute appendicitis with rupture was made, and owing to the apparent desperate condition of the patient she was immediately sent to the Watts Hospital at Durham, a distance of twenty miles, where she was placed in the hands of Dr. Joseph Graham.

On July 13th the patient was returned to my care and at this writing, July 30, 1907, her wounds have so nicely progressed that her mother is now dressing them. The patient is in better health than she has enjoyed in the past year, eating what she wants, going where she pleases, suffering no pain and apparently not inconvenienced by the loss of her right kidney.

Condition on admission to Watts Hospital:

Well developed girl. Age 13. Ula L. Facial expression shows great pain.

History.—Four days before developed sudden pain in right iliac fossa near umbilicus. Pain gradually grew worse and was followed by nausea and vomiting. Pain was localized in right iliac region. Pain was much relieved during night of second day but returned on the third day and was more severe and continuous, followed by return of nausea and vomiting. The vomiting was repeated after admission to the hospital, No movement of the bowels for two days. Purgatives had been repeatedly administered by the family before calling Dr. Abernathy. Nothing could be elicited as to previous history, as patient was suffering extremely and father knew little of her history.

Examination.—Temperature 104, pulse 146, respiration 26-30. Patient located pain directly over McBurney's point. Palpation reveals marked rigidity of entire right side of abdomen and some slight general tenderness more pronounced over McBurney's point. No tenderness in lumbar region or over gall bladder. Percussion revealed an area of dullness in right iliac. No irritability of bladder, specimen of urine obtained by catheter revealed normal Sp- Gr. and no albumen. Leucocyte count was not made. Rectal examination reveals tenderness in right iliac.

Diagnosis.—Appendicitis, Perforation, Abscess.

Operation.—Right rectus (Deaver) incision.

On opening abdomen found omentum adherent in right iliac fossa to colon and parietal peritoneum. Working carefully through a coffer dam of gauze a perfectly normal appendix was found and removed. Then sought for the trouble causing adhesions.

Pelvic organs normal. Right kidney could not be found, carried finger up and palpated gall bladder, which was apparently normal. As finger came away from gall bladder a hard, slightly movable mass was detected. Enlarged incision and separated omentum from colon, packed colon to inner side of wound. Then found a hard mass behind the mesecolon, the shape of the kidney, but approximately twice as large. Carefully protecting the abdominal contents with gauze diaphragms, an incision was made through the outer edge of mesecolon. A black, enlarged kidney came into view. Deciding to do a nephrectomy, we elevated the kidney and found the pelvis of the kidney and upper end of ureter to be distended with fluid. Expecting pus, carefully protected and then ligated pedicle and clamped between kidney and ligature. Then cut between clamp and ligature, dropping the ligated stump of pedicle and lifting out the kidney. As the pedicle dropped back it bled profusely. The ligature had cut the pedicle. Retied the artery and hemorrhage was completely controlled. There was a twist in the ureter a few inches below ligature, but no calculus. Then packed the cavity with gauze, which was covered over with the mesecolon and the incision in mesecolon sutured with catgut. Removed gauze protectives, adjusted intestines and closed abdomen without drainage. Then made incision in lumbar region and brought out end of gauze which had been previously packed in cavity for drainage. Patient was considerably shocked but promptly rallied.

Examination of removed kidney revealed a very much enlarged organ, very black in color. Incision revealed no pus or stone. The kidney was friable and could be broken and torn with the fingers by very slight effort.

Post-operative History.—With the exception of slight mural abscess recovery was uneventful. The girl soon rallied from the shock. Temperature and pulse returned to normal. No nausea, vomiting or obstructive symptoms. Daily examination of urine showed quantity above the average, comparatively low sp. gr. and at no time did examination reveal albumen, blood or casts. She had no headache and no disturbance of vision.

November 1, 1907. The patient is apparently in perfect health.

For successful issue in this case I am very much indebted to Dr. C. A. Adams, who gave very able assistance, and to Dr. Will Holt, who administered the ether so successfully that we were able to finish this long, tedious operation with a living patient, although she went on the table in a desperate condition.

Strangulated Inguinal Hernia in Infants with Report of a Case.

By John Egerton Cannaday, M. D., Hansford, W. Va., Surgeon-in-charge, Sheltering Arms Hospital.

As compared with its frequency in adults, strangulated hernia is unusual in infants, the laxity of tissues combined with the absence of many of the usual exciting causes tending to prevent it. So rare is it that not one-half of one per cent. of the cases of hernia occurring in infants are strangulated. However, when it does occur the lack of resistance in the subject renders the indications for surgical relief even more insistent than when this accident happens to the adult. Continental surgeons, especially those of England and Scotland, operate rather freely on hernia occurring in infants. In this country the persistent use of a truss for several years is thought well of. If that fails to effect a cure, then the radical operation should be resorted to. The infant, like the aged and infirm, is in many particulars an unsatisfactory subject for surgical intervention. In accordance with the rule of frequency which obtains with adults, about three males are afflicted to one female. The abnormally large inguinal opening in the infant is usually of congenital origin, unlike the acquired condition of the aged.

A nearby loop of intestine becomes crowded into the sac; with the lessening of the pressure which forced the bowel down, the dilated hernial ring contracts and grasps the bowel; the imprisoned intestine is irreducible and cannot free itself; there is a stasis of the fecal current and interference with the circulation (producing in mild cases venous congestion and in severe cases absolute cessation of circulation). The ultimate result of strangulation is gangrene, the rapidity of development varying with the conditions present. The vessel anastomoses are few, the fecal content decomposes easily, and bacterial invasion of the sac is rapid. The intestine becomes friable; gangrene begins in small areas where the circulation is poorest; these discrete patches later become confluent. Considerable disturbance takes place in the loop leading to the hernia; putrefaction of the stagnant contents occurs with the resultant gas distension; reversed peristalsis and other disturbances along with peritonitis. Distension may be so great as to obliterate the liver and splenic dullness.

In the symptomatology of strangulated hernia we have three symptom groups arranged from the point of time in the order named; strangulation shock, intestinal obstruction, and sepsis. Strangulation shock is as distinct an entity as that produced by torsion or compression of the testicle. The symptoms comprise nausea, vomiting, small thready pulse, pallor of the skin and mucous membranes, cold perspiration and other disturbances of the general condition. The intestinal obstruction produces meteorism varying in accordance with the high or low constriction of the gut, the vomitus becomes partly or wholly fecal in character. The higher the obstruction the earlier the vomiting comes on. Sepsis brings about restlessness, lack of appetite, nausea, peritonitis of gradual or sudden onset; a general intoxication from the gangrenous or suppurative condition of the sac may intervene. When peritonitis develops suddenly from perforation or some other pathological accident the pain is violent and localized in the beginning, later spreading over the entire abdomen. The symptoms common to continued and increasing sepsis and intestinal obstruction continue and grow worse. Oliguria and even anuris may come on as a result of the diminished amount of water in the body.

The diagnosis is based on the history and the symptoms. The hernia usually feels firmer than before and is often sensitive to the touch. An irreducible mass is present which extends into the abdominal cavity. It may have a certain amount of lateral motion, but up and down motion will be very limited. At times even when the vitality of the gut is endangered the symptoms may be so atypical and slight as to make the diagnosis one of doubt. On the other hand, the strangulation of a small omental hernia may occasion extreme symptoms. At the moment of strangulation there is a sharp pain and the hernial mass is increased in size. An accurate history is of much importance in making the diagnosis. There is often a bowel movement from the portion below the hernia, soon after the obstruction takes place. After the strangulation, coughing and straining do not influence the tension.

When left to itself the prognosis is so grave that recovery would constitute a surgical curiosity. At times strangulation shock alone is of sufficient severity to kill the patient; pneumonia, inanition, prolonged suppuration or other inter-current trouble may cause a fatal ending.

The treatment in most cases is undoubtedly and unquestionably surgical so long as the patient is not moribund. When the patient is seen early after the symptoms of strangulation have made their appearance, and when the onset has not been acute, taxis should be resorted to, and in event of failure the hernial sac should be opened at once. Taxis is thought by many to be more especially indicated in the very young who are hard to keep clean, and in the aged and infirm who do not bear operation well. Taxis may waste valuable time, and may bring about the reduction of hernia en bloc or bowel that has lost its viability. Violent manipulations may cause tearing of the intestine. Before resorting to taxis the stomach and lower bowel should be irrigated and emptied, the urine should be drawn, muscular relaxation obtained by appropriate posturing and the use of an anesthetic, and the hernia should be elevated so as to be the highest part of the body. The fluid contained in the sac when opened is an excellent indicator of the condition of the intestine. If the fluid is ill smelling or contains flakes of lymph, the bowel is very likely to be in bad condition. In attempting to make the decision as to whether a piece of gut is viable or not, the sense of touch may give more information than that of sight. The lifeless gut is flaccid and has the feel of moist blotting paper. Gray brown spots are indicative of gangrene. Resection and even the formation of an artificial anus will often have to be resorted to. When there has been much infection the radical operation should be omitted and the wound packed with gauze. In case of doubt sutures can be placed and left loose to be tied later. When the radical operation is resorted to it is usually best to make use of the more simple and time saving methods. I do not believe that the transplantation of the cord has any particular merit to commend it. Connell and Ferguson are quite certain that it predisposes to epididymitis or other inflammatory lesions. Operation infection should be very rare when a careful rubber glove technic is followed. After ligating the neck of the sac I often carry the ends of the suture upward between the parietal peritoneum and rectus muscle, and secure the neck of the sac in a higher position so as to obliterate the former funnel-like depression existing at the point of occurrence of the hernia. After dealing with the sac the hernial opening is closed by the introduction of sutures of thirty day chromic catgut. The idea suggested by Czerny and later elaborated by Ochsner, that if the ring is denuded of its lining before being closed union will be assured and recurrences rare, should be one of the basic principles of surgery of this part of the body. The cord is not moved from its normal position, and the superficial is sutured over it with a running suture of plain catgut. The edges of

the skin wound are approximated with the usual suture of silk or linen thread.

The operation, as we know it, for the radical cure of hernia was first performed by Czerny in 1877. The mortality of operations for the radical cure of hernia in skilled hands is from 1-2 of 1 to 1 per cent. The mortality of strangulated cases for many reasons will always be high.

I will report the following case: The patient was a three months old male baby referred by Dr. H. S. Reger of Macdonald, W. Va. The child developed a complete inguinal hernia soon after birth. This was easily reducible at first, but later difficulty was experienced in returning the bowel to the abdominal cavity. The evening before the patient was brought to the hospital symptoms of strangulation came on. Attempts were made to reduce the tumor by taxis, first without and later with chloroform anaesrhesia, but unsuccessfully. As the condition of the child was becoming serious it was brought to the Sheltering Arms Hospital the next morning and operated on immediately. The child was weak and considerably shocked. For this reason it was deemed advisable to make use of local anaesthesia. A sterile 2 per cent. solution of beta-eucaine was used. The customary method of anaesthetizing the nerves, supplying the parts involved and also the line of incision was followed. I at once dissected the structures down to the constriction, opened the sac, enlarged the ring, and as the imprisoned loop of gut seemed viable, returned the strangulated intestine to the abdomen. I then closed the hernial ring with chromicized catgut. During the course of the operation the parts were handled as gently as possible; but little shock was manifested and the baby slept during the greater part of the time. To prevent wound contamination a dressing composed of a few fibres of cotton and some flexible collodion was used. The baby rallied promptly and in a few hours was nursing at its mother's breast. The course of convalescence was uneventful and so far, six months afterwards, there has been no return of the hernia.

To summarize I would note the infrequent but occasional occurrence of strangulated hernia in infants. The ease of a reasonable certainty in the diagnosis of this condition. The dangers of taxis by reason of the fragility of the structures involved. The dangers of operations in infants have perhaps been overestimated. By proper precaution and care the risks of post-operative infection can be largely eliminated. The shock incident to anaesthesia and prolonged manipulation can be avoided by the proper use of a sterile and practically non-toxic anaesthetic and by rapid and careful work.

Hemorrhagic Malarial Fever: Report of Cases.

By F. A. Webb, M. D., Calvert, Alabama.

As the title indicates, the purpose of this paper is to present the subject in a clinical way, giving a practical experience, rather than the natural history, ætiology and pathology of the disease.

My first experience with this fever was a personal one. After an exposure to malaria for two years in the river bottom lands of the Tombigbee river, I was attacked late one evening in October, 1885, with a chill. Language fails to convey the feeling of prostration and aching of every part of the body I suffered from. The next morning at 8 or 9 o'clock I had my second chill, accompanied with hæmaturia. I was practically unconscious and delerious for the greater part of the time. My attending physician, Dr. Taylor, having given up all hope of my recovery, Dr. V. P. Gaines, of Mobile, was called in consultation. By heroic treatment they pulled me through. During convalescence it was urged by Dr. Patsky (a Major Surgeon in the U. S. Army), that sweet milk in twenty minim doses be given hypodermatically, every three hours, to increase the red corpuscles of the blood, as my anemia at that time was very pronounced. Only two of the milk injections were given, resulting in abscess and blood poisoning, but as one of my good friends remarked afterwards, I recovered "in spite of the doctors."

By way of comment, I would not advise or advocate the method of my scientific and learned physician in the treatment of anemia, or to increase the red corpuscles.

The second case that came under my observation was that of a young man, L. B., aged 25 years. This young man had been exposed in a logging camp known as "Bull Pen" in the river bottoms, and here he contractdd malaria. He was brought to Calvert for treatment. I saw him at 5 a. m. The history given was one of malaria, and had been sick for a week. His entire body was intensely jaundiced, had been, and was still vomiting quantities of matter that resembled black vomit more than anything else, was passing bloody urine, also hemorrhage from the bowels. The vomiting was uncontrollable, also the hemorrhages, and in a few hours my patient was a dead man. This case we might well class "Malaria Hemorrhagica Fulminans." No medication seemed to have the least effect, either to relieve or stay the progress of the disease.

My third case was C. E. H., male, white, aged 30 years. This gentleman had been

exposed to malaria for a period of several years in the river bottoms. In this case, prostration, nausea and hæmaturia were the most pronounced clinical symptoms. After quite a severe illness of two weeks he made a good recovery.

My next case was Mrs. B. S., white, aged 25, mother of three children. This woman gave a history of exposure of some months to malaria near the river bottoms, culminating in the present attack of malarial hæmaturia. In this case also the extreme prostrations bordering on collapse, nausea, and bloody urine were the symptoms present. After a ten days illness she made a good recovery.

My next case was with Mr. G. D. K., aged 50 years, white. This gentleman had been exposed for years to malaria, spending a greater part of his time in the river bottoms. When called to see him obtained the following history: Had had a chill on Wednesday night at his camp on the bank of the river—came out next day to his place in the pine woods. Thursday morning had another chill, followed by hæmaturia. It was then that I was sent for. Saturday he had another chill, also another on Sunday, each chill attended by severe prostration, hemorrhage and vomiting. After a critical illness of four weeks he made a good recovery.

It has been my observation that these cases occur in the months of September or October, after a prolonged exposure and repeated attacks of malaria.

All cases present a clinical picture of prostration, more or less jaundice, nausea, hemorrhage, either from the bowels, kidneys or stomach, also pronounced anemia.

Treatment.—This can be summed up as supporting, eliminating, expectant, and eternal vigilance. The first indication is to relieve the utter prostration, aching, nausea and hemorrhage. The only drug that can be depended upon is morphine and atropine—this given hypodermatically, p. r. n., until these symptoms are under control. For elimination, calomel and soda, followed by a saline. To act on the kidneys, laxative lithia. To stimulate and produce diaphoresis, the hot mustard foot bath, the hot corn pack, or the hot air bath. As an antidote for the malarial poisoning, quinine per orum, rectum, endermically or hypodermically. Hot saline enemas will be found efficacious to combat shock and to stimulate the kidneys and act on the bowels.

I would warn you against the use of any of the coal tar preparations. Pilocarpin is also a dangerous drug. It is true they will produce profuse sweating, but owing to the great prostration, and fear of collapse, they are dangerous. Tr. chloride of iron, also arsenic, have served me well. Adrenalin has also suggested itself as possibly a valuable therapeutic agent, but as yet I have not tested it in any case.

And last, but not least, eternal vigilance is required—and the expectant plan to be followed—if we hope to combat this disease with any degree of success.

The use of quinine is a much debated question. From my own experience, when given with judgment, it is an important therapeutic agent.

Some Clinical and Practical Points about the Prostatatiker and Prostatectomy.†

By Robert C. Bryan, M. D., Professor Descriptive Anatomy and Genito-Urinary Surgery University College of Medicine, Richmond, Va., Visiting Surgeon to Virginia Hospital, etc.

Since last appearing before the Medical Society of Virginia the writer has had under observation some sixteen cases of urinary obstruction in men, between the ages of 53 and 85, due to enlargement of the prostate gland.

And as my title calls for clinical and practical points for relief of this condition, the subjects of histology, pathology and diagnosis will be only briefly considered. As to the physiology, however, we must bear in mind that the prostate gland is unlike other secreting, constantly elaborating glands of the body, in that its removal has no appreciable effect upon the balance wheel of vital centres, and further, that its secretion is destined for a periodic expulsion, and not to influence, by its absorption, the economy and nervous adjustment of the body. These two factors are in marked contrast with the physiological duties of other glands found in the body. Again, the prostate is really outside of the body-as is, indeed, the remainder of the genito, urinary tract. The only organs of consequence with which it comes into an anatomical intimacy are the terminal reservoirs of the urinary and alimentary canals, both of which by virtue of location, (being extra-peritoneal) bony encasement, mobility and generous vascularity, are peculiarly fortunate and immune to traumatism and the mechanical insults incident to daily life.

With its base applied against the anterior wall of the rectum and held there by that highly developed muscular plane, the recto-urethralis; its apex implanted against the posterior layer of the firm triangular ligament; its under surface resting upon the unyielding fascial and muscular partition which fills in the perineum, and the superior surface supporting only the under wall and

†Read before the Medical Society of Virginia, at Chase City, Nov. 15th-16th.

neck of the mobile bladder: this organ on increasing in size, whether symmetrically or asymmetrically, uniformly or eccentrically, spreads out in the line of least resistance which is upward and backward.

It is by rectal examination with firm counter pressure over the pubes, that the organ's size, contour, location, consistency, symmetry, and character can be satisfactorily determined, and the neighboring glands readily palpated for secondary involvement, and supplemented by urethral capacity, mensuration and cystoscopic examination, the compensation of the bladder, its future compensating possibilities, varices of the vesical floor, stone, inflammation, injection, pouches, diverticulæ, sacculations, ureteral continence, muscular hypertrophy with concentric shrinkage, or muscular atrophy with eccentric distention, and the consequent capacity of the bladder are rapidly taken in.

It is the muscular potentiality of the bladder wall that determines the patient to seek medical advice. So long as the bladder by hypertrophy and intrinsic effort overcomes the urethral resistance incident to enlarged prostate, just so long the patient is either unaware of his trouble or thinks sufficiently lightly of it to ignore medical advice,—at that moment, however, by virtue of excesses, exposure, cold, constipation, etc., there is inaugurated a primary ultra-acute, venous, prostatic engorgement, the bladder is unable to conquer this slightly added demand to its failing and weakening power, there is acute retention, with its train of symptom-complexes which demands immediate and competent surgical aid.

There are a few of us present who have not seen this condition.

The patient should be put instantly to bed and a high, hot enema immediately carried out, with precision and care. This is, the writer believes, of the greatest importance and value. For by unloading the rectum and lower bowel, exciting locally a circulatory activity, combined with the consequent massage incident to a hydrostatic pressure, the acute condition is frequently side-tracked in a most gratifying way. Occasionally the hypodermic use of morphine for relaxation and quiet is of value particularly with marked tenesmus, straining and evidences of hæmorrhage. Hot stupes over the bladder region are preferable to the Sitz-tub; for with the latter, the down-hill position, and zone of unequal temperature, causes a still greater passive congestion to the submerged parts. It, however, may be tried if the hot water bag and applications to the bladder region prove of no avail. It is now that gentleness, care, patience and asepsis are the veritable watchwords; the bladder will not burst, and the ruthless, inopportune, hasty use of an unsterile and rough (or even sterile and smooth) catheter, at this time, has produced far greater evil than if left to nature's method of finally voiding the urine, drop by drop, by a pressure anæmia.

The cause of the acute retention is a succulent, oedematous, passive congestion, the prostate is soft and spongy, the mucous and submucous structures are injected, and there is a flow of se[illegible]oughout the organ, more into the m[illegible]osa and submucosa than elsewhere. How is it possible for a catheter, even of the smallest size, to locate and pass through an urethral opening through which a drop of water cannot find its way! The writer believes that in but a few instances does it find this opening, very much more often it does not, the tortuous and blocked prostatic channel, with vertical slit-like sides, does not allow of easy and immediate soundings. A metal or firmly-woven silk instrument, tends to keep on in its own axis, the soft organ is penetrated, gives way, the catheter is thrust on through the substance of the prostate until finally urine emerges after a blood clot has been thrown out, which the operator is astonished to see, but the retention of urine is relieved! Shortly there is a chill, the urine and prostate, heretofore clean, have become infected, the cause of the infection—the catheter; the source, the lacerated prostate. Aseptic preparation of the suprapubic region, a small ¼ inch skin incision and the rapid thrust inwards of the trocar, thus attacking the bladder from behind the prostate and not through it, is surely based on better surgical principles. Repeated aspirations in this stage may be carried out with less risk of infection than by the use of a catheter. The trocar may be left in situ, syphonage being adopted, or irrigation of the bladder with astringent or antiseptic solutions is readily and easily performed. Regardless of how the bladder is gained some solution should always be thrown in after evacuation of the urine. The sudden let up of the hydrostatic pressure on the engorged veins of the submucosa gives rise to rupture, an intractable hæmorrhage following.

On the other hand, in the old, hard, long-standing prostatic hypertrophy in which the venous injection has long since undergone a replacement fibrosis, the prostatic urethra is hard and well defined, its walls, though curved, are slick and resistant, and a soft catheter now inserted runs no risk of being shoved through the prostatic substance. Even at this stage, however, care must be observed, for false pockets, due to traction diverticula, may be mistaken for

the normal channel and perforated. Another point to bear in mind is the "*prevesical* or *prostatic pocket*," which is found peculiarly in the urinary obstruction of middle lobe overgrowths, this pocket filled with urine is formed in the prostatic urethra by a dilatation of its walls, bounded on either side by the lateral lobes, anteriorly by the cut-off muscle, and posteriorly by the enlarged ball-valve middle-lobe which fits snugly over the ve[illegible] opening in the well described ball-socket [illegible]. This prevesical or prostatic pocket may hold from several drops to as many drachms of urine, which from time to time have trickled around the ball-valve or by its recession has allowed of the urine's escape. The catheter inserted now, goes a shorter distance, six to eight inches, meets no resistance and evacuates urine, only the contents of the pocket, however, no more. On further insertion the middle lobe is immediately located and felt, occasionally it may be shoved to one side, the contents of the bladder then being withdrawn.

The writer had under observation such a case, the internal opening being plugged by a symmetrical, well-defined, globular, middle-lobe overgrowth which was easily removed by the supra-pubic route.

In those cases of prostatic enlargement characterized by marked venous congestion through pressure of the gland on the periprostatic plexus, varicosities of the floor of the bladder may be pronounced, so pronounced that the vein bursts into the cavity of the bladder and continues to bleed until the pressurs in the bladder is equal to that in the vein. About a year ago the writer witnessed the results of such a case in a laborer, 55 years old, who, for several years, had been annoyed only, with a nocturnal frequency of urination. On lifting a heavy weight, he felt something give way in the bladder region which was attended by some pain. Later, because he was not able to make his water, he called in a physician. On catheterization only clotted blood and urine, highly stained, was withdrawn, infection caused continued bleeding, so that, several weeks later, when first seen by the writer, the patient was suffering from marked uro-sepsis, most anæmic, and in a pitifully weakened condition. A supra-pubic cystotomy was performed, and irrigation of the bladder by iodine solution carried out three times daily, two weeks later the radical operation was performed and the two moderately large lateral lobes were removed. The patient gained rapidly in weight and strength and in a short while was again at his work.

Bleeding from the floor of the bladder is a much more frequent complication and epiphenomena of prostatic hypertrophy than is commonly supposed, the writer believes in a large number of instances it is the first trouble that attracts the patient's attention to himself; but this hæmaturia is usually empirically associated with malignancy or tuberculosis!

Operative procedures for prostatic hypertrophy should be attempted only by one who enjoys a thorough and intimate familiarity with the perineum, for such a knowledge does not allow of injury to the rectum, to the seminal vesicles, lacerations of the base of the bladder, or uncontrollable hæmorrhage.

Right here a practical point may be mentioned, the arterial supply to the perineum is the internal pubic, which, escaping from the pelvis through the greater sacro-sciatic foramen, returns by the way of the lesser foramen to course upwards and anteriorly to supply the bulb, corpora cavernosa, and terminate as the dorsal artery of the penis. It is by retraction of this severed artery under cover of the falciform process of the greater sacro-sciatic ligament that alarming hæmorrhage is produced. If the operator will locate the inner aspect of the prominent tuberosity of the ischium, the curved, sharp, falciform ligament is immediately felt, and under its cover lies the internal pudic which can be readily ligated or crushed against its bony back-ground.

Having tried the bi-ischial, semilunar, the median and horse-shoe perineal incisions, the writer believes that the inverted "Y" is the one of choice. It gives all the room possible, and is made parallel with the arterial supply—an important factor—the membranous urethra is rapidly located, a prostatic retractor inserted, and the important step of the entire operation is now at hand, "to clear the under surface of the prostate and its posterior wall from muscular and fascial attachment to the rectum."

The levator ani swings antero-posteriorly in the pelvis as an incomplete hammock between whose deficient leaves inferiorly, the protruding prostate is grasped. This muscle is easily stripped and held aside, presenting posteriorly the base of the prostate applied against the rectum by the short firm fibers of the recto-urethralis muscle. With curved scissors (the concavity against the prostate) the muscle is severed, the finger is inserted and swept around to be sure of the gland's freedom. A large (preferably Young's) perineal retractor is placed against the anterior wall of the rectum, which is shoved well back out of the way, the prostatic retractor is pulled down, and the gland is now satisfactorily in view and can be removed according to the operator's selection.

Fifteen to thirty minutes more spent in

the careful preparation and dissection of the operative field, identifying structures, and thoroughly and carefully freeing the prostate from its muscular attachments to the rectum, is insignificant compared to the months or years of discomfort and unhappiness caused by its hurried and blind removal through a field which has been incompletely and unsatisfactorily opened up, and in which the prostate is taken by tearing and touch, and not by enucleation under guidance of the eye. For with a careful dissection and gentle traction the prostate is readily brought down flush with the perineal floor, where it may be held, palpated and incised under easy view.

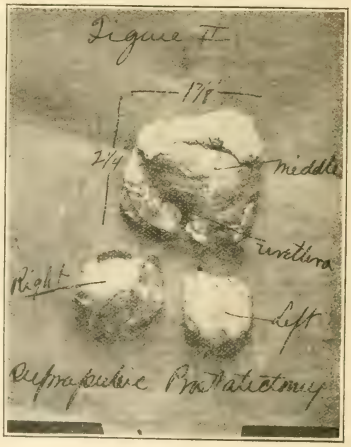
In selected cases of lateral enlargement a median bar carrying the ejaculatory ducts is better left, the lateral lobes being readily taken away by incision from the sides and around this bar. In this way the procreative integrity is maintained and the complication of relapsing orchitis is done away with.

With urinary obstruction from purely middle lobe overgrowths the supra-pubic method is the better, although the writer removed through the perineum by way of the urethra a rounded middle lobe about the size of a hazelnut. A large catheter for bladder drainage and irrigation is put in the urethral opening, the perineal wound sown up tight, with a small cigarette drain at its pendent angle, and the patient told to be up on the second day, the tube is removed on the fourth day, after which the course, convalescence, and treatment is practically that of an external urethrotomy wound. The arterial supply to the perineum is very generous, drainage is good, wounds have no difficulty in healing here.

The writer submits three photographs illustrating the prostate, removed by No. 1. Supra-pubic prostatectomy "en masse." This is the method of choice of most English operators. In this operation the prostatic urethra is taken away with the gland, the hole in the floor of the bladder is large, drainage is imperfect, and despite claims to the contrary, until some method of more satisfactory drainage is established, the writer cannot see the advisability of performing this operation over that of the perineal route.

The dimensions of the organ are given on the photograph.

No. 1.



No. 3.

No. 3.—Supra-pubic prostatectomy for middle lobe over-growths. Which according to character, and shape of base may be snared, cut or enucleated. In this case a longitudinal median incision was made, the middle lobe enucleated from around the urethra, and the smaller lateral lobes taken away through the same opening. The results in this case were highly satisfactory, due, no doubt, to leaving the prostatic urethra intact.

No. 4.

No. 4.—Perineal prostatectomy, lateral lobes being removed leaving middle bar carrying the ejaculatory ducts.

This latter operation, the writer is convinced, is the ideal method for attacking and removing the prostate for all forms of over-growth, except the ball valve over-growth of the middle lobe, which should be removed by the supra-pubic method.

Were the prostate alone the only cause of the patient's condition it could be speedily remedied, but those conditions, which have been going hand in hand with the enlarging prostate, have also been undergoing a pathological metamorphosis. Surgery cannot rectify in as many minutes conditions which have taken years to obtain. The bladder wall, the ureters, the pelvis and kidney substance, the heart, the arteries, the general anæmia, depletion, and uro-sepsis, incident to daming back of waste products, destined for excretion,—and not for systemic absorption, are also to be reckoned with and cautiously weighed.

In the normal man perineal prostatectomy is nothing more than a deeper dissection of an external urethrotomy, and should be attended with no more risk, but a prostatectomy is never performed in a healthy subject, it is essentially a disease of advanced life, senile changes, contracted kidney and atheromatous arteries, pathological states which call for the physician's advice aside of any operative procedure.

The anæsthetic, the shock, (primary and delayed) hæmorrhage, congestion of the kidney, uræmia, pulmonary œdema, embolism, lowered index of repair, and other less frequent complications and sequelæ, are sufficient to pronounce the operation "of severe character, attended with more than the ordinary risk, but with brilliant results in selected cases."

The writer arbitrarily divides the Prostatiker's Life History into three stages.

No. 1.—*Enlarged Prostate*, characterized by a moderate frequency of urination.

Examination.—Bladder healthy. Residuum, two ounces or less, and clear, organs normal, general health excellent.

No. 2.—*Enlarged Prostate*, characterized by "catheter life" or overflow.

Examination.—Bladder tired out and infected. Residuum, large amount and nasty, kidneys and heart compensating, general health fair, able to attend to work.

No. 3.—*Enlarged Prostate*, (really No. 2, plus systemic infection), characterized by acute retention or incontinence.

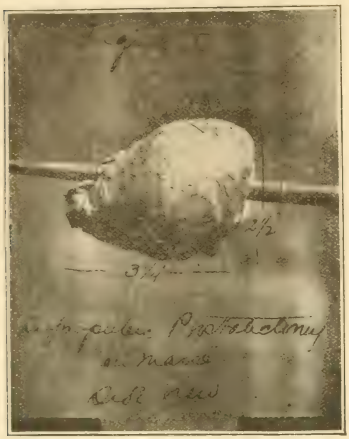
Examination.—Bladder and kidneys infected. Residuum, the capacity of the bladder, kidneys and heart not compensating, confined to bed, uro-sepsis, uræmia, delirium.

Of these, No. 1, with compensating clean bladder, organs normal and general health excellent—there is no indication for surgical interference. The patient should be told of his condition, warned of possible complications, and advised to consult his surgeon every few months, who explores for enlargement of the gland, examines the urine's residuum and washes out the bladder.

No. 2 is really a compensating No. 1, plus infection; and is the type which sooner or later should find its way to the surgeon's table—and the sooner the better. With compensating organs, scrupulous cleanliness and care, this prostatiker may live out his allotted number of years, succumbing later to some intercurrent disease; but with the daily increasing danger of failure of compensation, and consequent systemic invasion, with their inevitable results staring him in the face, an early and radical operation can be conscientiously advised, and earnestly recommended. It is this class which constitutes by far the majority of operative cases, the mortality bearing a remarkable ratio to operation before and after compensatory influences.

No. 3 is the non-compensating prostatiker plus uro-sepsis. Radical procedures here are clearly out of the question. Permanent drainage of the bladder is all that should be attempted, but even this is usually not well borne by the septic, uræmic patient. The writer had under observation such an instance,—a man 84 years old, on whom a supra-pubic cystotomy was performed; the "systemic drain" did everything possible. In a month he had left the hospital much improved, the wound was allowed to heal

and at last accounts he was doing well.



No. 2.

In conclusion, the following may be stated:

a. Hypertrophy of the prostate with urinary blockage is a relatively common condition.

b. These patients should be constantly under their physician's observation and advice.

c. They should be warned of the complications, and familiarized with the importance of aseptic precautions.

d. With the initial establishment of "catheter life" or with a large residuum, operation should be earnestly advised.

e. The operation of choice is the perineal route.

f. The patient should be up on the second day following.

g. Sparteine sulphate in these old kidneys should be most cautiously employed. "Wash out with water and not with drugs."

h. In the first stage do nothing radically. In the second stage do the perineal operation radically. In the third stage do the supra-pubic cystotomy radically.

i. In all three stages remember that other organs are to be seen to besides the prostate gland.

Surgery and the General Practitioner.*

By J. W. Ellis, M. D., Lampasas, Texas.

Gentlemen:—

My object in this paper is to discuss the relation of the general practician to surgery and to urge him to be a better diagnostician and to apply his anatomical and surgical knowledge when urgency and humanity require. By a brief review of the history of medicine, we shall see that the attitude of our profession has changed markedly in reference to surgery. In ancient and mediaeval times it was considered beneath the dignity of a physician to do any work with his hands for his patient, this being delegated to the barber who set broken bones, extracted teeth, checked hemorrhage, etc. But after the dissection of human bodies became permissable, establishing anatomy as an exact science, surgery received a direct impetus; yet, however, it could not attain its present proportions without the advent of embryology, histology, bacteriology, and other sciences which have been developed in the last quarter of the nineteenth century. So now at the present time this branch of medical practice with its retinue of specialties is well and lastingly established upon a scientific basis.

I desire first to consider minor surgical work, the greater part of which is done by the general practician, since people do not often go to a surgeon to have boils and felons lanced or carbuncles treated. The general practitioner is the man most often consulted and the man who usually does the work for which he often does not demand nor receive adequate remuneration. A physician will open an abscess, write two or three prescriptions for treatment of same, give general directions, and apply a dressing all for the pitiable fee of one dollar. Gentlemen, this fee is disgracefully low and beneath the dignity of a learned profession, and such is true of much of our work. Yet it is hardly fair to raise the price of services unless the service itself is made more efficient. We should examine our patients more carefully. For instance, make a chemical and microscopical urinalysis, make a blood count, or make a microscopical examination of pus or sputum or serum as the nature of the case may indicate. Every physician of this generation should have his office so equipped with instruments, surgical dressing material, X-ray, and static machine so that he can easily carry out modern diagnostic procedures and institute modern rational treatment. Physicians are prone to be negligent in their minor surgical work, and this tendency to slight the minor details conduces to the formation of the habit of carelessness, which habit will be carried into their major operations, often proving disastrous to patient and operator. Besides there is not a better opportunity for impressing upon the laity the value of cleanliness and asepsis than is offered by our less important operations, nor there is nothing that detracts more from a man's

*Read before San Angelo District Medical Association at Lampasas, Oct. 25, 1907.

prestige than a dirty, bunglesome, minor operation. The laity will naturally conclude that the man who is not careful and painstaking in his less important work is not the man to be trusted when life or limb is in jeopardy.

A minor operation should be faultless in technique and observant of aseptic and antiseptic precautions. The operator should take into consideration the cosmetic results of the operation as well as the future utility of the part. This is especially important in females who are easily offended by the presence of unsightly cicatrices.

In opening an ordinary boil we are often too negligent about cleanliness. For this seemingly unimportant procedure the hands and instruments of the operator should be rendered aseptic—the hands by washing in soap and alcohol and the instruments by being passed through pure carbolic acid and through absolute alcohol. The site of the boil should be washed with green soap, plain water, and 95 per cent. alcohol. Absorbent cotton should be placed about the abscess before making the incision in order to take up and dispose of the pus flowing from the incision. I am aware that there are many who doubt the necessity of observing the above technique, reasoning that there is already an infection and that cleanliness will avail nothing. It is true that pyogenic organisms have already gained access to the part, otherwise the formation of pus would have been impossible, yet bacteriology teaches us that there are other organisms, as the bacillus tetanus, which may enter the abscess cavity by means of dirty hands or instruments and thereby set up constitutional disturbances of far greater gravity than those originally present.

As to the amount and character of major surgical work that a general practician should do, a great deal depends upon the skill and facilities of the operator. Upon this point the opinions of physicians and of surgeons are at variance with themselves and each other. Yet we all agree that there are certain major operations which, when required, admit of no delay and therefore demand an immediate execution. The laity and the profession at large have a right to expect of the general practician the knowledge and ability necessary to recognize the nature of, and to institute the proper operative procedures in all urgent surgical conditions. Why should the general practitioner not be able to inaugurate correct treatment in at least the most frequent emergency cases? We all, in our college days, received the same instruction and attended practically the same clinics. I believe that when an emergency case happens, the general practician should shoulder his responsibility and with whatever assistants and facilities are at his command, should operate at once, especially if the life of the patient is in imminent danger for want of operative interference. I believe, too, that the education of the general practician as found among the rank and file at the present time is adequate to warrant him in assuming the responsibilities of grave surgical conditions. We should, however, make frequent study of those grave emergency cases, so that when they arise we shall not be found wanting; and will be able to do the right thing at the right time, the element timeliness being an important characteristic of the product of every successful medical attendant.

Obstetrical surgical work is usually very urgent in its nature and the practician should keep this ever in mind, not neglecting to be prepared when the crucial moment comes. In such conditions as rupture of the uterus, eclampsia, etc., we do not have time to call a surgeon. We must have the knowledge and courage ourselves to open the abdomen or apply the forceps if we would do all that our patient is entitled to receive from our hands. We should also attend to the minor details of obstetrical practice such as lacerated perinei, which cause the woman an untold amount of discomfort and suffering, and lacerated cervices which, aside from the inconvenience, are so conducive to the development of carcinoma of the cervix. It has been well said that the gynecologist thrives upon the sins of omission and commission of the obstetrician and if the latter always did his whole duty there would be little use for the former. Such is true to a more limited extent with the surgeon and the general practitioner.

Yet nothing in this article is to be taken as depreciating the value of the services of the surgeon to humanity and the medical profession. It is he who fearlessly marches up face to face with the enemy and grapples with him in a hand to hand combat. It is he who has furnished the pathologist with material for his laboratory and research work and the student with specimens for his study and edification. The surgeon often does more for a patient by a few wise strokes of the knife than our pharmacopœia would do in months or even in a life time. The man in the general practice who has his mind engrossed with the little aches and pains of Mrs. A., or who has sat up all night with Mrs. B. in a lingering case of dystocia, or who has spent the night in packing chalk roads or bogging in muddy lanes is not the man best qualified to do a clean, smooth, surgical operation. So appendicitis, carcinoma of the mammary

gland, sarcoma of the lower jaw, and all like conditions should be sent to the surgeon who in his more mature judgment and more extensive experience will be able to do the best thing for the patient. Yet I do not believe that the general practician should resolve himself into a bureau of reference, sending all his surgical work to the surgeon, his female patients to the gynecologist, or all his ear and eye troubles to the aurist and oculist. Such a course not only takes work from him which he should have and which he can do both to the satisfaction of himself and his patient, but it causes him to loose self confidence which is one of the most important elements in any physicians make up. And not dealing with these diseases of special organs, he will easily loose whatever knowledge he has gained of them during his transit through college and through the clinics. Knowledge not added to and put into practice is dead weight and soon forgotten. Therefore, gentlemen, let us courageously do the things which of right belong to us, but let us be conservative in sending to the surgeon and the specialist those special cases that demand their attention. Let us follow the dictum, "Render unto Cæsar the things that be Cæsar's."

The Relation of the Physician to the Public.*

By V. Berry, M. D., Wetumka, Oklahoma.

The physician in his daily avocation, if he is a thoughtful man and interested in his calling, is constantly reminded of the lack of interest displayed by the community, as a whole, in medical matters. The varied sociologic phases, as well as scientific details of our profession are as a sealed book to the average layman; and while it may be a profitless task to try to point out where the fault lays for this state of affairs, I believe it will be of some benefit to the public as well as the profession to try to get together and understand more of each other. Surely a profession engaged in the relief of human suffering is worthy of the thoughtful consideration of all right-minded people; and I wish to impress upon every layman present here tonight that the character of your doctors depend entirely upon your appreciation of what a doctor should be

The relation of the physician to the public is paralleled by no other profession, and is only approached by that of the ministry. There is no trust so sacred as that of the life and health of the individual, and the community at large, except it be that of the soul; and I am somehow of the opinion that if the possessor of the soul objects to its saving the preacher will not count for much, anyway. However, we can not dispense with the labor of our over-worked and poorly paid minister, for we often need him to add the finishing touches to the doctor's futile efforts.

Our profession is the only one of which I know that compels its devotees to answer the call of distress at his own peril and discomfort when he knows there is not one cent's remuneration in store as a reward for his services. Section I, of Chapter I, of the "Principles of Medical Ethics of the American Medical Association" says: "Physicians should not only be ever ready to obey the calls of the sick and the injured, but should be mindful of the high character of their mission and of the responsibilities they must incur in the discharge of momentous duties. * * * * * * * * * *

These observances are the more sacred because, generally, the only tribunal to adjudge penalties for unkindness, carelessness or neglect is their own conscience."

Section 1, of Chapter III, says: "The broadest dictates of humanity should be obeyed by physicians whenever and wherever their services are needed to meet the emergencies of disease or accident."

No finer sentiment ever actuated any class of men in any calling, and while there are those among us, as well as in all social and religious bodies, who do not come up to the standard, yet as a class we adhere strictly to the sentiments here inculcated. We have our selfish, unscrupulous adherents, but that should only make the pure gold shine the brighter.

The confidential relation of the physician to his patient is one of the most sacred and delicate situations that can exist between two human beings, and he who would be so base as to betray it is unworthy of the calling. The doctor sees both the physical and moral defects of his patient. The "family skeleton" is dragged forth in all its gruesome details for his inspection; the domestic life of his patrons is seen to the minutest detail during his professional ministrations, and it is his duty to keep these secrets as inviolate as the tomb. Many a tragedy is known only to the family and the doctor. Many a home could be wrecked by a simple whisper from the family physician, for we all know that since the fall of old Adam it is human to err, and that regardless of station in life; both in the church and out of it, and it is the faithful family physician who by his very training can look on the foibles of humanity with that charity that was taught by the lowly Nazareen.

*Read at an open session (to the general public) of the Hughes County Medical Association, at Holdenville, Okla., Nov. 12th, 1907.

When we realize the close relation existing between the physician and his patient it is but natural that we should expect him to endeavor to correct some of the false notions held by the laity regarding our profession. It has been said by some one that while the science of medicine has advanced marvelously during the past one hundred years, the people themselves have not advanced one inch in one thousand years in their understanding of medicine as practiced today. I believe this to be absolutely true, in a large sense. In an observation during twenty years practice I have met hundreds; yes, thousands of intelligent people, I might say educated people, who actually believed in superstition and sorcery in the treatment of disease. It has not been a month since I was told by a woman that she had cured her husband of malarial chills by tieing a *red* flannel string around his neck—regardless of the fact that he had been taking quinine for several days. A *green* string would not have cured him. A poor fellow was suffering from "night sweats" as a result of a tubercular infection of the knee joint. His wife "cured him" by setting a vessel of cold water under the bed—regardless of the fact that incision and drainage were instituted as measures of relief. We have all met the fellow who carried a buck-eye or potatoe in his pocket to "ward off rheumatism." Such nonsense is no less silly than the ancient Greek superstitions regarding Mandragora. It is superstition that makes you believe the lieing statement of the so-called Christian Scientist—God save us from such science—when he tells you "there is no pain." Is it possible that any but a superstitious person could believe that a limb could be torn from the body without pain? It was superstition and fanaticism, and they go hand in hand, that caused John Calvin to have Servetus, the great theologian and physician, burned at the stake; it is superstition and fanaticism that causes a loving mother to sit by the bedside of her dying diphtheritic child while a Christian Science Sorceress utters a lot of nonsensical gibberish over the innocent victim, in face of the fact, demonstrated thousands of times, that antitoxin will cure nearly every case if administered in time. One of the greatest obstacles today to the progress of scientific medicine is that where a patient recovers by the aid of nature, in *spite* of quackery, it is heralded to the four winds as the brilliant achievement of some *ism;* while the patient who recovers under scientific treatment attracts little, or commonplace, attention.

The charlatan, or quack, may be a very shrewd judge of human nature, and if so he knows how to play on the credulity of his victim, and especially on those who are really ill; for it is a fact that those who are afflicted by disease are peculiarly susceptible to the influence of those who hold out alluring promises of relief, even though they are unreasonable. The poor, suffering patient is like the proverbial "drowning man catching at straws," and the shrewd quack's chief stock in trade is a promise to cure even though it is impossible.

The subject of quacks naturally leads to the subject of doctors advertising. People often ask why doctors do not advertise in the newspapers. And newspaper men often express concern that the doctor places a ban on newspaper notoriety. It is natural that the publisher should be interested, for it is a matter of business to him. I can not explain our attitude on this subject better than to give the following hypothetical illustration: Let us suppose that all physicians, as well as quacks, are allowed by custom to advertise their supposed merits in the weekly and daily papers. Suppose that during the year Dr. Jones, a graduate of one of our best medical schools, a man of high professional skill and a high sense of honor and several years experience, moves into your community for the purpose of practicing his profession. Suppose that following Dr. Jones closely comes Dr. Brown, a shrewd, sharp, polished fellow "from back east," who has never seen the inside of a medical college, or may be has attended one or two courses at a second rate school, but by smooth manipulations and "pull" has secured license to practice. He may be an unscrupulous scoundrel covered with broad cloth and a silk hat, and ride in an automobile, and yet be entirely ignorant of the principles of the profession he pretends to adorn, but he can rattle off technical jargon sufficient to make the uninitiated stare in amazement, though his jumble of words may have no more real meaning than the idiotic nonsense in Mrs. Eddy's rubbish. He advertises, though, and in flaring headlines claim to cure every known disease from chicken pox to consumption. On the other hand Dr. Jones modestly announces that he is in your town, and can be found at such a place at such an hour, and will respond promptly to your calls. Suddenly the little daughter of Mr. and Mrs. Smith is taken very ill with a pain in the right side, fever, vomiting, and rigid abdominal muscles. In their distress Mr. and Mrs. Smith cast about for a physician. They have read the ad. of Dr. Brown, and perhaps have not even noticed the modest card of Dr. Jones. Dr. Brown positively says he cures everything, and as that is the kind of physician they want he is sent for

in haste. There is another very attractive reason for employing Dr. Brown. He says he cures all diseases "without the knife." He even discards the scissors and saw, and of course Mr. Smith don't want any knives, scissors or saws used on *his* child. Dr. Brown arrives with great flourish. He enters the room with a pompous air, and after a period of deep meditation his countenance assumes a wise expression and he announces that the little sufferer has "congestion of the bowels," and that with very close attention he thinks he can pull her through "if the medicine will act." It would be unnecessary for me to say to a physician that there is no such disease as "congestion of the bowels," or of anything else for that matter; but the term has been used to cover many a hellish crime; it has tolled many a funeral bell, and has covered the ignorance of many a quack. Dr. Brown applies a poultice, gives some nauseous concoction and goes forth to other victims. Alas! "the medicine never acts"—in the way he had hoped. In from a few hours to a few days we find the little sufferer "resting easy." It is the ease before death from general peritonitis, as a result of a ruptured septic appendicitis, and in a few hours a mothers darling will be tenderly lifted into a little white box and lowered to mother earth as a sacrifice to ignorance, superstition, and credulity. If Dr. Jones had been called he would have made a diagnosis at a glance, for there is no disease easier of diagnosis, and instead of expecting to perform a miracle—the Good Book tells us miracles are no more—with drugs he would have called a competent surgeon, if not one himself, and the idol of a mother's heart would probably have been spared to grow up to useful womanhood. Now any one that has eyes to see and ears to hear readily knows that I have not overdrawn the picture, and that the universal custom of advertising the *supposed* merits of physicians would lead to just such tragedies as I have related. My personal belief is that it would be a national calamity, dragging our profession in the mire and slime of public ridicule, and destroying that dignity that should be the passport to all learned professions. This would not be so, perhaps, if *all* medical men were of equal attainments and integrity, but, alas! they are not and never will be. Advertising would let the bars down to the unscrupulous scoundrel and be no advantage to the honorable physician.

This leads me to a few thoughts on the doctor who is always itching for a write-up in the "locals" regarding some wonderful surgical operation, or other professional achievement. You have all read something like this: "A ten pound boy arrived at the home of Mr. John Jackson yesterday. Dr. Corncob reports Mr. Jackson able to be about." Now do you suppose that Dr. Corncorb got his name mixed up in the newspaper by accident? The editor of the paper did not care a fig whether Dr. Corncob, or Dr. Blowhard, or any other doctor was the physician in this, or any other case; but Dr. Corncob is a subscriber, and, perhaps, carries a professional card and gets a little stationary printed occasionally, so he "grafts" on the newspaper man for a little free ad. I say this is the case nine times out of ten, though I would say that sometimes a newspaper man through friendship for a physician will put such stuff in with a mistaken idea that he is doing him a personal favor. However, it is not only a great wrong to the physician so "favored," if he be of any standing in his profession, but is a grave injustice to his competitors. Allow me to say, though, that as a class newspaper men are gentlemen, and when the situation is explained to them they will gladly acquesce, and willingly aid us in eliminating those who are trying to "graft" on them for free self-advertising.

I do not wish to be understood as saying that social and business movements of physicians are not to be recounted in public print. They are to be treated in this respect just as other mortals. It is only their professional relations with patients, and the laudation of professional achievements that are tabooed.

I am sorry that the heroes of medicine are not known to the general public. I only wish you could know something of Lord Lister, of England, who exposed himself to malignant infection from dangerous wounds swarming with millions of poisonous germs that he might work out the principles of antiseptic surgery, those principles that have banished hospital gangrene from the face of the earth, and made operative surgery one of the greatest blessings ever bestowed on mankind, and saved tens of thousands from an untimely grave, You are all familiar with the life of the great Napoleon Bonaparte, the man of blood who caused the death of over two million of his countrymen, and caused France, his native land, to trail her garments in poverty and untold woe, yet who of you can tell me of Lister, who has brought joy and happiness to millions of people and hundreds of thousands of homes by saving the lives of their loved ones? Who would not take off his hat to such a hero? Talk about doing honor to a Napolean, or an Alexander the Great! They dwarf in comparison.

Think of the heroism of the great German scientist, Pettinkofer, when after swallowing a glass of water swarming with millions

of cholera germs as a test of the mode of conveyance of this dread disease, who on being asked if it were not better that one of his younger and less useful assistants take such a dangerous risk, replied: "I have every right to consider that my body is worthless. I am seventy-four years old. * * * * * * * * Even if the experiment took away my life, I should look death calmly in the face. For it would be no thoughtless and cowardly suicide. I should die in the service of science as a soldier on the field of battle."

Think of the brave Surgeon Major Ross, of the English army, who searched the deadly swamps of India for two and a half years for the type of mosquito that transmits malarial infection to human beings.

Let us learn of Kitasato and Aoyama, the Japanese physicians, and Yersin, the Frenchman, who risked their lives hundreds of times in the study of that most dreaded of all diseases, bubonic plague. Aoyama experimented once too often, and forfeited his life.

In the clinical amphitheatre of the great Johns Hopkins Hospital, at Baltimore, you can see a plain tablet in the wall which reads: "In Memory of Jesse Williams Lazear." This is the simple token in memory of this young American physician who voluntarily exposed himself to the bite of the type of mosquito which was supposed to transmit yellow fever to the human subject. The supposition proved only too true, and Dr. Lazear gave up his noble life that you and I might be able to avoid this dread disease. Drs. Reed and Carroll, two other American physicians were associated with Dr. Lazear in these experiments, and Dr. Carroll has recently died of a weak heart induced by experimental inoculation of himself with yellow fever germs. It can also be said that Dr. Reed gave up his life in the same experiments.

It should make one proud that he is an American citizen when we recall such sacrifices as these in the cause of humanity.

I could spend hours telling you of the relation of the physician to the public in hygienic and sanitary affairs, and how, if only given a chance, the doctor could be made an asset of incalculable value in every community, but time forbids.

In conclusion I hope I may be pardoned for wishing this meeting may result in bringing about a closer and more helpful alliance between you and your doctors.

I beg of you that you aid in every way the honest, conscientious physician who is striving to master his profession in a scientific and dignified manner. On the other hand, it is your duty to "make it warm" for the charlatan, or quack of every description, so that he will tarry not, but will seek pastures new, and fields of a more verdent hue.

Pain and Blood Pressure.

Curschmann (Munchener medizinische Wochenschrift,) investigated the question of the behavior of the blood pressure in the presence of painful stimuli. For this purpose he subjected various groups of individuals to painful electrical stimuli, recording the blood pressure before and after. One set comprised persons with normal sensibility; these reacted with an elevation of 8 to 10 mm. of Hg., though in two out of twenty a drop of 10 to 15 mm. was caused. In persons with neurotic or organic hypertension the elevation produced was still greater, and the author considers that it may be accepted that both in well and sick persons with normal skin sensitiveness the application of painful stimuli causes a rise in blood pressure, more rarely a fall. In disturbances of sensibility either through organic disease or hysteria, this result did not follow. In gastric and intestinal crises in tabes the blood pressure was found to be very high as well as in lead colic, whereas in instances of abdominal pain due to other causes, such as carcinoma of the stomach, gallstones, etc., this was not the case, and he suggests that this sign may have diagnotic value.

Wine and Typhoid Fever.

Carles discusses the question whether the use of wines to modify water that is suspected of impurity will be any safeguard against typhoid fever. He has made experiments with various forms of French wines as to their effect on the typhoid fever germs, and finds that some of them have an appreciable bactericidal quality which is not dependent on the amount of alcohol that they contain, since it is not diminished by heating the wine and thus driving off the alcohol. White wines are more active than red ones, and especially champagne is valuable. The degree of acidity of the wine appears to be an important quality, since the use of an alkali destroys its bactericidal power. The amount of fluid with which the wine is mixed, as well as the time it is allowed to stand, both affect the bactericidal qualities of wite. Making the mixture some time beforehand and allowing it to stand before giving it to the patient has been found to be favorable to this power.—Journal de Medecine de Bordeaux.

Frequency of Tuberculosis in Infancy.

Lomini believes that tuberculosis in infancy is much more frequent than has been

recognized. Autopsy shows this to be the case. These forms of tuberculosis may remain latent for years and only be revealed by autopsy. He collects and tabulates the cases on which autopsies were made at the Pediatric Hospital in Florence, from 1902 to the present time. From 437 autopsies on babies, 186 showed tuberculosis. The respiratory organs were found to be very frequently involved, while the intestines and abdominal organs were much less frequently affected.—La Pediatria.

Diphtheria, Irregularity of the Pulse in.

Peters (Lancet) considers that irregularity of the pulse in diphtheria in children is really of little special significance, being due to the great incidence of the disease in the early years of life, especially the fourth and fifth year. Children at this age commonly exhibit this symptom in any febrile disturbances and often in apparent health. The irregularity is very common, indeed, it being found in over 80 per cent. of the author's cases. Comparisons of similar numbers of diphtheria and scarlet fever cases showed about the same percentage of cardiac irregularity. The irregularity is referred by various authorities to a nervous origin, rather than a cardiac. There seems to be an excessive susceptibility in the inhibitory action of the vagus, and it is believed that the rhythmical stimulation of the respiratory center has a rhythmical effect on the vagus center. The author refers to Barr's explanation of the mechanical effect of the respiratory act on the circulation. The fall in blood-pressure in disease is undoubtedly the primal cause setting up the irregularity.

If actual myocarditis is present, an irregular pulse is, of course, of the gravest significance. In most diphtheria cases with irregularity the latter continues during hospital stay, and the children are kept in bed week after week when they would do better if in the open air, which would certainly improve their anæmia. Assurance must first be obtained that the irregularity is more than respiratory. The presence or absence of cardiac signs will help decide this point.

Anastomosis Between the Common Bile Duct and the Duodenum for Obstructive Jaundice.

Fullerton (Brit. Med. Journal,) reports the following operation done on a man of sixty-six years. The patient had four doses of calcium chloride, fifteen grains every four hours, the day previous. A vertical incision five inches long was made over the most prominent part of the tumor and the abdominal cavity opened. The gall-bladder was found to be distended so as to be rather larger than a goose's egg. There were no adhesions. The liver was enlarged and was dark purple in color. It was firm in consistence. The peritoneal cavity having been shut off with large gauze pads, the gall-bladder was opened, and a large quantity of clear glairy fluid escaped. Three small black mulberry-shaped calculi were fished out of the gall-bladder, which was now in a collapsed condition. No stones were discoverable by palpation in the cystic duct. On the under surface of the right lobe of the liver was found an irregular whitish scar about the size of a sixpence. On drawing the liver upwards a hugely dilated common bile duct was brought to view, and on tracing this down it was found to lead to a hard mass in the position of the head of the pancreas. Several smaller nodules, thought to be enlarged glands, could be felt extending towards the foramen of Winslow. The dilated duct was almost as large as a piece of small intestine. An attempt was made to empty it by massaging its contents through the cystic duct towards the gall-bladder, but without success, owing to some difficulty at the neck of the gall-bladder, the nature of which could not be determined. Accordingly, it was decided to drain the common duct by anastomosing it with the first part of the duodenum. This was accomplished with some difficulty, on account of its deep position, by means of a small Murphy button, using fine silk for the purse-string sutures and several reinforcing Lembert stitches to prevent possible leakage. Before placing the female portion of the button in the duct an incision was made into the latter and a large quantity of glairy fluid with no trace of bile in it was quickly mopped up. The finger could be introduced into the duct and passed up into cavities in the liver corresponding with the dilated hepatic ducts. To facilitate manipulation of the parts it was found necessary to make a transverse incision at right angles to the upper end of the original wound in an inward direction. The button having been satisfactorily adjusted, the abdominal cavity was mopped dry and a stab puncture was made in the loin to provide drainage. A split rubber tube with a gauze core was passed through the opening so made. The wound in the gall-bladder was sutured to the peritoneum and transversalis fascia and the viscus was drained by a rubber tube which led from its interior to a sterilized bottle. The abdominal wound was closed with through-and-through sutures of silkworm gut, and the patient was returned to bed, having stood the operation well. Five months later the patient was in good condition.

Charlotte Medical Journal

EDWARD C. REGISTER, M. D., Editor.

No. 36 South Tryon Street. - - - -

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THE STATE HOSPITAL FOR CONSUMPTIVES.

We learn that the directors have recently purchased a tract of land at Montrose, Cumberland county, containing 948 acres upon which will be established the Sanatarium for which the last legislature appropriated a large sum of money. The price paid was $7,700. It is said that work will begin upon the buildings at an early date.

A NEW DIRECTOR FOR THE STATE LABORATORY OF HYGIENE.

The State Board of Health has recently appointed Dr. C. A. Shore, a native of Salem, to take charge temporarily of the State Laboratory of Hygiene during the disability of the director, Dr. Gerald McCarthy. Upon the expiration of his term, March 1st, 1908, Dr. McCarthy will retire from the position after a long term of most satisfactory service. Dr. Shore was elected at a recent meeting of the Board of Health to succeed the present incumbent, and on March 1st he will assume entire control of this important department.

Dr. Shore is a graduate of the State University and has a degree of M. D. from Johns Hopkins. The State is fortunate in its choice of this gentleman. He is eminently fitted for the position. The office and laboratory are on the third floor of the Agricultural Building and there is a very complete equipment. It is a very important sub-department and the State Board of Health and the Agricultural Department co-operate in regard to it.

The Southern Association of Medical Colleges held its twentieth annual meeting at New Orleans December 16, 1907. Fifteen schools were represented. Among the many important questions discussed by the association, perhaps the one of most far reaching interest was that pertaining to the advisability of demanding a four-year high school course as a qualification for entrance into Southern Medical Colleges. The resolution was referred to a committee appointed to investigate the matter. This is but another evidence of the general tendency making all over the country toward raising the standards of medical education. It is coming and we pray that it may be soon.

GREENSBORO COTTAGE SANATARIUM.

The Greensboro Cottage Sanitarium, for the treatment of tuberculosis, opened January 1st, 1908. Dr. Jno. R. Williams is Medical Director, Dr. Wm. M. Long, assistant Medical Director, and Dr. W. P. Reaves, visiting Laryngologist. The Journal believes in the cottage plan of treatment and is pleased to see so much being done in North Carolina toward the eradication of the great White Plague. We wish for Dr. Williams and his associates great success in their undertaking.

THOMPSON HOSPITAL.

The Journal notes the opening, at Lumberton, of the Thompson Hospital, Dr. N. A. Thompson, Resident Physician and General Manager. This institution is prepared for the treatment of all non-contagious medical and surgical cases. It is thoroughly equipped with modern appliances, hot and cold baths and has a competent corps of trained nurses. A specially noteworthy feature is a department for the scientific, ethical and humane treatment of whiskey and drug habits. We bespeak for Dr. Thompson success in his enterprise.

The Crowell Sanatorium, Charlotte, N. C., for the Treatment of Alcoholic, Drug and Nervous Diseases, Dr. S. M. Crowell, was re-opened January 1st, 1908.

Dr. Crowell has already established his reputation as a specialist on the diseases for the treatment of which his institution is established. His well known ability makes re-introduction unnecessary.

The regular meeting of the Forsyth County Medical Society was held Dec. 10, 1907, in the Winston-Salem municipal building and was largely attended. There was much interest in the annual election of officers, which resulted as follows: President, Dr. D. N. Dalton; vice-president, Dr. R. D. Jewett; secretary and treasurer, Dr. Eugene Gray. Dr. J. Lewis Hanes was elected a delegate to the State Medical Society, which meets in this city next year. Drs. E. A. Lockett and H. S. Lott were elected members of the executive board of the Twin City Hospital Association and Drs. C. L. Summers and H. F. Pfohl were elected members of the training school committee.

Dr. R. D. Jewett read a most interesting paper on general diseases of the eye for the benefit of the general practician.

ELECTIONS.

The Guilford County Medical Society, at its regular meeting, held in Greensboro December 6, elected the following officers for the ensuing year: President, Dr. John

R. Williams; vice-president, Dr. William P. Beall; secretary-treasurer and delegate to the State Society, Dr. Edmund Harrison, and censor, Dr. William J. Richardson, all of Greensboro.

At the recent meeting of the Cabarrus County Medical Society the annual election of officers resulted as follows: President, Dr. D. Greenlee Caldwell, Concord; vice-president, Dr. James C. Black, Harrisburg; secretary-treasurer, Dr. J. Edward Smoot, Concord, and delegate to the State Society, Dr. William D. Pemberton, Concord.

TRI-STATE MEDICAL ASSOCIATION.

The regular annual meeting of the Tri-State Medical Association of the Carolinas and Virginia will be held February 18-19, 1908, in Charlotte, N. C. Dr. Stuart McGuire, of Richmond, is President, and Dr. J. Howell Way, of Waynesville, N. C., is Secretary-Treasurer. The Journal hopes for a full attendance in the Queen City. There are memories lingering yet in many minds of the manner in which we of Charlotte entertain. Come again and our hospitality shall not be less. The program of the meeting will doubtless be an interesting one, since the Association is composed of those who stand highest in the profession of the component States.

THE MEDICAL BRIEF CHANGES HANDS.

The Journal notes, not without a certain sorrow, the retirement of Dr. J. J. Lawrence, for thirty-five years editor, publisher and proprietor of the *Medical Brief*. At his seventy-second year, Dr. Lawrence has decided to give over his work into younger hands and to retire from business of every kind. As he says: "the time has come when he feels that he would like to rest—to get away from all turmoil and strife, and for the remainder of his days pursue the even tenor of his way 'along the cool sequestered role of life.'" Dr. Lawrence has been a strong figure in medical journalism. Always an independent thinker he has never failed to fight for that which is right. Possessed of a brilliant mind his writings have not failed to leave their impress. The *Medical Brief* passed into the hands of Mr. Henry R. Strong, a successful publisher, who promises to continue the publication of the Brief. We trust that the new will be as good as the old. Here's to him the very best good-wishings!

Dr. F. M. Winchester, Charlotte, N. C., has been elected recently to the Board of Health of the city. He is a man well qualified to serve on so important a body. We congratulate the city on its choice.

PLAGUE IN SAN FRANCISCO.

Much space has been devoted during the past few years to the threatening of our shores by the dreaded scourge of the east; yet the medical press has not realized the importance of the situation. In former issues we have remarked upon the wide-spread invasion of the world by Bubonic Plague, and while the eastern and southern States seem far removed from even the possibility of its appearance, the truth nevertheless is thrust upon us that it has existed for several years upon the Pacific coast, and but recently a new outbreak of considerable proportions—considerable enough indeed to cause some anxiety to thinking men—has occurred. It forces upon us the conviction that with all our boasted civilization there is yet much to be done in the way of sanitary control. The blindness manifested in the opposition of municipal authorities and of the lay press in San Francisco upon the appearance of the disease in that city in 1900 and 1901 is yet fresh in the minds of many. The narrowness shown in the fight made against publicity as to the exact condition of affairs is nothing short of mediaeval. Those who asserted the existence of plague were reviled and abused, and strenuous opposition and denial met every attempt to institute investigation or establish quarantine. Many are reminded of the fight made by Kinyoun, then in the United States Public Health and Marine-Hospital Service, and the heart breaking manner with which his positive assertions as to the presence of plague were swept aside. Subsequent developments have amply vindicated him.

The startling rapidity with which bubonic plague has spread from its home in the East is amazing and we sit idly by while millions are sacrificed annually to its insatiable greed. In March, 1900, the first death from bubonic plague, verified by bacteriological examination, occurred in San Francisco. Other cases soon followed and the warfare on the medical profession and between its members was precipitated. In January, 1901, the notorious Schmitz became mayor of San Francisco and he with the Governor of California and the newspapers of the city, as well as the State Board of Health and in fact a majority of San Francisco's doctors of medicine, arrayed themselves against the City Board of Health, the United States Public Health and Marine Hospital Service, and a minority of the physicians. As a result quarantine and sanitary measures were defeated-publicity through the newspapers was denied and the clamor of the ring above named against common-sense proctetive measures was continued in the face of the

positive official report of the commission appointed by Surgeon-General Wyman and consisting of Drs. Simon Flexner, F. S. Novy, and Lewellys F. Barker. As a result plague spread to towns in the vicinity of San Francisco, and while confined chiefly to Chinatown still there have been many genuine cases among the whites. There are no means by which it is possible to say how many cases have existed, yet we dare say only a fractional part have been reported. Even after Dr. Rupert Blue, of the Public Health and Marine-Hospital Service was placed in charge, in 1903, this opposition continued. But with active and systematic work, destruction of plague foci and rat extermination the plague subsided.

It is interesting to note in passing that the ground-squirrels in the districts around the city have acted as carriers of the infection to a greater extent than have rats. Both of these small animals are infested with fleas and both have been found to die in numbers of bubonic plague. However, in the city itself rats seem to be the chief carriers.

From 1903 to 1906, there followed three years apparently free from plague. Whether this is largely due to the continued domination of the opposition ring and their suppression of knowledge of the existence of the disease is uncertain. Doubtless it remained in certain localities, for since the earthquake and fire of April, 1906, the epidemic has broken out afresh and with renewed vigor.

Immediately the theory presents itself that conditions following this catastrophe were admirably suited to the outbreak of any latent infection which might have been harbored in the ruined city. Undoubtedly remaining foci of the burned district were destroyed and thousands of rodents must have perished, yet thousands must have been driven into the undamaged area of the city. With the general demoralization, the destruction of sewerage system and water supply, the unhygienic and filthy conditions which unquestionably arose in the camps and hovels of the homeless, together with the depression which resulted, everything favored the re-infection of the inhabitants. Foci appeared and existed in widely distributed areas and there is small wonder the infection has not reached even greater proportions.

Even in the face of these facts, the first reported case occurred in May, 1907, since which date there have been found numerous cases. Figures may or may not indicate the real state of affairs.

With the downfall of Schmitz and his tools a new order of things was instituted. The present mayor, Dr. E. R. Taylor, has shown himself the man he should be. The county Medical Society has accomplished much good by its investigations and as a result of an appeal to President Roosevelt the United States Public Health and Marine-Hospital Service has been placed in charge of the plague work, with Dr. Rupert Blue, passed assistant surgeon in charge of the work.

Active measures have been adopted, financial aid being given by the National Government, yet the work is still inadequate. The newspapers, while not continuing their positive abuse and open opposition, still tacitly refuse to lend their aid as they should do. Quarantine is imperfect and the force employed inadequate.

The Jour. A. M. A. to which we are indebted for this outline of facts thus summarizes the situation:

Active and thorough anti-plague work is being done in San Francisco and Oakland, including inspection of all dead, isolation of all suspects, destruction of suspected infected material, clothing, etc., and the destruction of large numbers of rats by poison, Danysz's virus, trapping, etc. The sewermen report that they never saw so many dead rats in the sewers, so it may be assumed that a Danysz of high virulency has been prepared and put out. Nevertheless, while the number of cases seems to be somewhat on the decrease, in San Francisco, the territory over which the infection has spread is constantly increasing. Outside of San Francisco, something is being done; but in comparison with the danger of existing undiscovered foci, and of cases occurring which may and probably do go unrecognized, and of the great amount of work which the State should be doing, it is not encouraging.

Society Meetings.

At the twelfth regular annual meeting and banquet of the Buncombe County Medical Society, held at Asheville, December, 16, the following officers were elected. President, Dr. Daniel Sevier; vice-president, Dr. Martin L. Stevens; secretary, Dr. Gaillard S. Tennent; treasurer, Dr. Thomas E. W. Brown; delegates to the state society, Drs. Thomas E. W. Brown and Chas. W. Jordan, and alternates, Drs. William P. Whittington and Owen P. Smith, all of Asheville.

At the regular monthly meeting of the Forsyth County Medical Society, held at Winston-Salem, December 11, the following officers were elected: President, Dr. David N. Dalton; vice-president, Dr. Robert D. Jewett, secretary-treasurer, Dr. Eugene Gray, and delegate to the state society, Dr. J.

Lewis Haines, all of Winston-Salem.

At the regular monthly meeting of the Durham County Medical Society, held in Durham, the following officeres were elected: President, Dr. Archibald Cheatham; Dr. Archibald C. Jordan, and secretary, Dr. C. A. Woodard, all of Durham.

At a recent meeting of the Jackson County Medical Society the annual election of officers resulted as follows: President, Chas. J. Candler, Dillsboro; Secretary, A. S. Nichols, Sylv.

By request we insert the following Communication:

December 57, 1907.

Editor Charlotte Medical Journal:

Will you kindly insert the following in your paper giving it as prominent a place as possible.

The writer desires information regarding any alleged recoveries or cures of inoperable or recurrent carcinoma of the mammary gland.

If any case or cases are known to any one who reads this circular and can be authenticated by facts as to the history and condition prior to recovery and the length of time which has elapsed since recovery such information will be appreciated and duly acknowledged.

Any well authenticated reports or recoveries of carcinoma located in other parts than the mammillary glands will be welcomed.

Cancer paste cures, X-ray cures, radium cures, or cures as a result of of surgical operation are not wanted.

Hearsay cases are not wanted unless accompanied by name an address of the person who can give information first hand.

Address
Horace Packard,
170 Commonwealth Ave.,
Boston, Mass.

Nalle-Mayer.

On the evening of January 15, 1908, at Trinity Church, Charlotte, N. C., Dr. Brodie Crump Nalle and Miss Sadie Belle Mayer are to be married. Both are widely known and exceedingly popular. Dr. Nalle is a prosperous young physician of Charlotte. Miss Mayer is the daughter of Mr. and Mrs. Minor Clinton Mayer, also of Charlotte.

DR. J. F. BEALL.

Dr. James Franklin Beall, a prominent physician of Linwood, died at 2:30 p. m., Dec. 7, 1907, after an illness of ten days of pneumonia. He was 71 years of age.

Dr. Beall was a major and a physician in the Confederate army. He was a member of a prominent family of South Carolina and leaves many relatives all over both State. Dr. Beall was a graduate of the University of New York. He was a member of the Davidson county Medical Society and of the State Medical Society.

DR. S. M. DEAL, BLACKSBURG, S. C.

Dr. S. M. Deal died at his mother's home in Blacksburg, S. C., Dec. 10, 1907. He was buried under the auspices of the Knights of Pythias, of which order he was an enthusiastic member. Dr. Deal was only 33 years of age. After graduating in medicine at the University of Maryland, he went to Columbia to practice his profession. He soon acquired a lucrative practice, but attacked by tuberculosis, he left Columbia and went to California, with the hope that the climate would restore him to health. His hopes were vain, however, and he soon returned home. He leaves a devoted wife and three little children, a mother, one brother, and one sister to mourn his loss.

DR. GEO. F. SHRADY.

We note with sorrow the death of Dr. Geo. F. Shrady, of New York, on Nov. 26, 1907. Pyæmia following an attack of gallstones quickly proved fatal. Dr. Shrady has been a prominent figure in the Medical Journalistic world for many years. Born in 1837, he was graduated in medicine from the College of Physicians and Surgeons, New York City, in 1858. After the close of the Civil War in which he saw active service as a surgeon, Dr. Shrady returned to his native city to engage in practice. Early in his career he became identified with the *Medical Times* as reporter, and later became its editor. Upon the founding of the *Medical Record*, in 1866, he was its first editor and for thirty-eight years give his best thought and effort as a writer and his skill as executive manager to the conduct of the Journal. In 1904 he resigned the editorship of the Medical Record. This Journal adequately attests his ability and the high character of his work as editor.

Aside from the numerous and valuable papers contributed to various medical journals he frequently published articles of a more popular character in the magazines and papers of the lay press.

Dr. Shrady is scarcely less widely known as a surgeon and practitioner. Early manifesting his special predilection for anatomy, he gave promise of great surgical skill, and his proficiency and the reputation which came to him amply justified the promise, yet because of his conservatism he never achieved the reputation he might have done. As a consultant and diagnostician, Dr. Shrady's services were sought and it is in

these special lines that he was probably best known.

From 1861 to 1879 Dr. Shrady was secretary of the New York Pathological Society and president of that organization in 1883-84. He had been president of the Practitioners' Society of New York and of the American Medical Editors' Association. He was a member of the Medical Societies of the county and of the State of New York, of the New York Academy of Medicine, of the Practitioners' Society of New York, of the New York Pathological Society, of the Harvey Society, of the American Medical Editors' Association, and of the American Academy of Medicine. He is survived by his widow, three sons, and a daughter.

Dr. H. P. Loomis.

Among the prominent men whom death has recently claimed, it is with especial sadness that we chronicle the passing of Dr. Henry Patterson Loomis, of New York City, Dec. 22, 1907. Dr. Loomis had scarcely reached his forty-ninth year and was at the very height of his intellectual powers and professional success when an attack of pneumonia quickly caused his death. The son of the eminent Alfred Loomis, he had followed in his father's footsteps, as teacher, general practitioner and hospital physician. We mourn his loss and sorrow with his bereaved family.

Dr. Nicholas Senn.

With the death of Dr. Nicholas Senn, the distinguished and famous Chicago surgeon, Jan. 3, 1908, terminates the earthly career of one of America's most widely known surgeons. A native of Switzerland, Dr. Senn graduated in 1868 from the North Western University Medical School, Chicago. His numerous writings proclaim him a man of very great literary talents; and of his great scientific attainments we have likewise have evidence in his well known volumes on surgical subjects.

During the Hispano-American war Dr. Senn was chief surgeon of the 6th army corps. More recently he had traveled most of the time, his letters published from time to time being highly interesting. Ill health had during the past two years debarred him from much active practice.

It is thought that during his recent tour of South America the high altitudes of the mountians proved unfavorable to his malady.

Dr. Senn was Professor of Surgery in the University of Chicago and also head of the Department of Surgery of Rush Medical College.

Review of Southern Medical Literature

New Orleans Medical and Surgical Journal, November, 1907.

Bacteria Carried on Appendages of Musca Domestica (Domestic Fly).—Dr. E. P. A. Ficklen after explaining numerous experiments says when we realize the danger from the carrying of bacteria which threatens us during times of widespread sickness one fundamental conclusion becomes clear. Stringent measures must be taken to eradicate flies. We of the South are especially concerned, for our warm winters force on insects only a brief hibernation. Their capability for doing harm which corresponds to their activity, extends over the greater part of the year in many of the Southern States. We must realize too, that extinction to be efficient in the shortest time possible, must be directed not against the mature fly, but against its breeding, as the slipshod ordinances of New Orleans are directed against the breeding of mosquitoes. The task, however, will be far easier in the case of the M domestica than in that of the stegomyia because of the definite and prescribed breeding places of the former. All horse stables must be strictly supervised, and the manure rendered uninhabitable to the eggs and larvae of the fly. Spraying with a strong solution of bichloride of mercury is recommended by most authors.

No matter how effective the method adopted is in theory a competent core of inspectors should be appointed to see that practical results are obtained. The average dairyman or stable owner thinks only of carrying out the letter and not the spirit of the law. Sanitation has no meaning to the class of people who should practice it most. Their utter ignorance of the danger from the prevalence of bacterial life unfits them for work which should be carried on with the utmost care and exactitude. These men carry the welfare of the community in their hands to a greater extent than they, or the great majority of people, can ever realize. In brief the effect of investigation upon the mind of any one who undertakes it will be to arouse the firm conviction that the time will come when it will have been proved that M domestica, the common house fly can carry, and in all probability has carried, every pathogenic bacterium known to science.

Nashville Journal of Medicine and Surgery, November, 1907.

Mastoiditis: Its Management and Treatment.—Dr. I. E. Wells believes if the physician is fortunate enough to see a case of

acute inflammation of the mastoid cells in its first stage, before pus has formed, he should have the patient put to bed and kept quiet. Give a light diet consisting principally of milk. Calomel should be administered in one-tenth grain doses every hour until a laxative effect has been produced. Tincture of aconite in one drop doses is an excellent remedy in the early stages. Leeches should be applied to two or three places over the mastoid. The ice bag or cold coil should be applied over this region. But cold, under no circumstances, should be applied over this region. The author believes that a blister only aggravates the disease. If under the use of antiphlogistic measures and the application of cold the pain and tenderness rapidly subsides and the temperature shows no evidence of septic absorption the chances are that no operation will be necessary. But on the other hand if pain continues, temperature high, and severe pain on pressure over the mastoid, the indications are for an immediate operation. In mastoiditis internal, should chisel an opening into the cells, establishing communication with the antrum and attic, examining all portions of the mastoid, removing all softened bone and granulations, etc. In acute inflammation of the mastoid occurring in connection with acute suppurative otitis media after using the antiphlogistic measures, if the pain is not relieved and the drum head is bulging a free incision should be made. If inflammatory symptoms do not subside the ear should be douched with a saturated solution of boric acid every two hours, or according to the amount of pain and discharge present. In case of scarlet fever or diphtheria the ear should be syringed out at least twice a day with bichloride of mercury solution 1-3000. After the mastoid cavity has been opened up and cleaned out should irrigate the cavity with bichloride of mercury solution 1-3000 and should try and force some of the solution through the antrum and the external meatus. The cavity of the bone should be packed with strips of moistened iodoform gauze.

The American Practitioner and News, Nov., 1907.

Hay Fever. Dr. J. M. Irwin believes that if at the beginning of the hay fever season the patient is in robust health no preparatory medication can do any good, but if the system is out of health general principles should govern the treatment. As the disorder progresses the appetite fails; the patient becomes nervous and irritable; the hearts action quickened and weakened, and the various organs of the body become sluggish in their action. Such remedies as are indicated may be given. For one week before the onset of hay fever, and throughout the whole course of the disorder, one drachm of sweet spirits of nitre may be given in a tumblerful of water three times daily, which will exert a decidedly beneficial influence in lessening the severity of the attack. When œdema of the bronchi occurs heroin one-sixth grain and atropia sulphate one one-hundred and fiftieth grain given hypodermically will afford relief. Asthmatic attacks are best relieved by the hypodermic use of heroin one-sixth grain and hyoscine hydrobrom one two-hundredth grain. When the abdomen becomes suddenly distended with gas, causing much distress, morph. sulph. one-fourth grain, and strychnine sulph. one-thirtieth grain injected hypodermically will give the quickest relief. When weakness and nerve depression occur stimulants taken in moderate doses are useful. The diet should be highly nutritious and easy of digestion. All excitement should be avoided. Locally all unguents, douches and fluids to be used with mops, or as sprays, should be free from irritating substances and rank odors unless it be necessary to remove from the air passages abnormal formations. A saturated solution of quinine sprayed into the nose three to six times daily at the beginning of the attack is useful. When the nasal membrane is swollen adrenalin chloride one part to two or three thousand parts of a weak solution of salt sprayed into the nose and eyes frequently affords relief. Liquid alboleine, when cold and used with a dropper glass or nebulizer in the nose, is a source of much relief. Towels wrung out of hot water and applied to the entire face at short intervals helps to allay the distressing itching. Finally, where the use of cocaine is not contraindicated a four or six per cent. solution sprayed into the nose and eyes in moderation will give positive relief for a short time. The author has used Dr. Dunbar's pallantin and believes it does more harm than good. Those who cannot avail themselves of a suitable climate should remain as much as possible within doors. Where circumstances admit change to the seaside frequently effects speedy relief and sometimes a cure. A locality where the wind usually blows from the sea should be selected or high mountains where there is not much grass and no rag weed or golden rod, and where this cannot be done closely inhabited cities with few grassy squares should be preferred.

Richmond Journal of Practice, November, 1907.

The Value of Elimination in the Treatment of Certain Forms of Epilepsy.—Dr. J. H. Hodges says that in the study of the large majority of the cases which have come under his care he has been impressed with the toxic pathogenesis of epilepsy and his experience has shown that there is a hypertoxic underlying bases with inadequate elimination. Believing that there was more of utility and value in it than could usually be obtained in intermittent office consultations and prescriptions, and wishing to test this method to the fullest extent he selected three children from his practice, two boys and one girl, all of nearly the same age, twelve to fourteen years, and sent them to his private hospital for a term of six weeks. So far as he was able to judge their average paroxysms were from two to four a week when not under large doses of bromides. The preliminary urinary examinations showed in each case an undue proportion of indican in the renal excretion as well as a deficient excretion of urea. It is needless to trace the treatment of these cases minutely, but with the exception of small doses of strontium bromide and a gradual reduction of salt in an aseptic diet until complete dechlorization was secured these patients had no medicines given except a laxative when necessary for the eltmination of the various products of metabolism. All of the other methods available, however, for the purposes of elimination were employed, such as an aseptic diet, free water drinking, moderate exercise by means of light and interesting work, massage and vibration, sweating by means of the Baruch Tonic Bath System, and eliminative measures by aid of the sinusoidal high frequency currents, etc. The result was in each case the seizures were notably decreased and the general health markedly improved. The vital and resistive force in each patient was so much improved as to be readily noticed by any one and in the case of one of the patients, there has been up to this time no return of the apileptic seizures while the other two have suffered only slight inconveience at long or erregular internals, more of them have exceeded fifteen graves of Stromonium Bronude daily, and all have continued, as best they could. The elemenative and tonic measures first prescribed. These cases cannot yet be classed as "cured", but their continued improvement after the lapse of a year argues well for the future. The inefficiency of treatment in the past should at least lend credulity to the present method of treating some cases of epilepsy and hold out renewed hope for greater success in the future.

The Southern Clivic, October, 1907.

Constipation and Nervousness:— Dr. W. T. Mars says the world is constipated. Constipation and its consequent absorption causes much of the nervousness extant today. Melancholia and hypochondriasis are more uniformly dependant upon the absorption of toxines into the blood than any other cause, the condition being dependant upon insufficient and erregular intestinal elimination. Nearly all women are constipated the hysterical and neuratic doubly so. Every constipated woman has a pain in head, back and side. France is the most neuratic people in the world and likewise the most constipated inebriates, cocanee fiends and other dope habities are generally constipated. The absorption of toxic matters creates morbid appetites and desires. The anemia and chorsis of young women usually depend upon a loaded colon and recturn. "Iron for the blood" in such cases is misdirected therapy. The pollution of the blood stream from constipation engenders habits and persersions which may in time become so fermly established as to defy their eradications. The cure for constipation is not in taking pergative pills, for they as a rule only increase the trouble aside from their temporary affect Several hundred cathartic and aperient drugs have been tested with a varying degree of success. Every sort of dietetic procedure has been tried and mechanical measures galore have at one time or another been put to the test. The fact remains, however, that to overcome constipation is to overcome laziness and carelessness in the time and manner of going to to stool. If a person will go to the closet at precisely the same time each day for one week and sit on the stool for ten minutes each time whether he has any incluation for an alinue evacuation or not he has done more toward correcting constipation than all the pills and doctors can do for him. He should drink water copivisly before and after meals. The auther has never known a good patron of the town pump to be troubled with constipation.

Virginia Medical Semi-Monthty, November, 22nd, 1907.

Principles of Surgery Lecture X. L. Surgical Tuberculosis Causes Symptoms Diagnosis Prognosis and Treatment:— By Dr. Stewart McGuire, Richmond, Va.

Intabation:—Dr. P. D. Lipscomb believes that throretically, intubation should never

be done except as a dernier resort. This is easily followed in institutional work, but in private practice where the conditions are very different, it often seems expedient to intubate earlier. In pre-antitoxin days, we are told, that there was little to be gained by postponing intubation in well marked cases of laryngeal diptheria. At present, the undoubted influence of antitoxin justifies waiting for stenotic symptoms before resorting to operation. These become quite marked in the second stage of the disease—the stage of spasm—when the pseudo-membrane begins to form. The following symptoms may be noted; characteristic voice paroxysmal cough accompanied by cyanosis, harsh resperation, becoming whistling in character later. At this stage of stenosis all the accessory muscles of respiration are brought into play. Well-marked retraction in the supra-clavicular region and epigastrium exhaustion and failing pulse are noted. Children set up suddenly with livid face, anxious expression and violent cough. The attacks recur at short intervals and suffocation is emminent. Intubation should be done at once. This stage may last from a few hours to a week, during which time the patient is struggling against violent dyspnoea and overwhelming toxarinia. The two positions in which intubation is practiced are sitting posture and dorsal recumbant posture. The authors experience in the former is limited to the intubation of two adults, both well developed men of good size. In his position it is practically impossible to hold the head still or to keep the patient from squirming almost out of reach. The dorsal position is always used at the Wellard-Parker Hospital, N. Y. C. Before one attempts to intubate the living subject he should have thorough training on the cadaver and even then a vast difference will be found in intubating a struggling, terrified child, where every moment lost in unsuccessful attempts diminishes chances of recovery.

Marlyland Medical Journal, Nov., 1907.

A New Rectal Sign:—Dr. H. K. Bond says that there is a condition of the large bowel in which, if the finger be lubricated and passed to its full length into the rectum the mucous membrane of the rectum will be found swollen in cushiony ridges, considerably narrowing the lumen of the organ. The swollen walls cannot be compressed by the finger. They are not inflamed not oversensitive. The ridges mentioned are merely exaggerations of the natural folds of the mucous membrane. This condition is usually but not always attended by tight contraction of the lower most sphincter. Hemorrhoids do not usually occur; the folds are not hemorrhoids. The condition described extends doubtless throughout the whole extent of the large bowel. This is "a priovi," probable and is indicated by the extreme difficulty encountered in injecting enemata, especially high enemata, into the bowel; the difficulty and even impossibility of passing the rectal long tube; the inability of the cecum and adjacent bowel to propel its contents into the sigmoid and of the sigmoid to empty into the rectum. Water forced slowly and carefully into the bowel is returned by the bowel as colorless as when injected or contains debris of long retained fecal masses. Subsequent events show that the cecum meanwhile, has considerable quantities of retained feces in it. This condition is probably included in the clinical discription of "spastic colon" but the tangable cause, is acute swelling of the mucous membrane of the bowel. Even when the lowest anal sphincter is sufficiently relaxed, there remains often a sensation of tension in the empty rectum and the finger still feels the tense swollen folds of mucous membrane. The author believes that this state of affairs is often followed by the formation of hemorrhoids if unrelieved In the cecum masses of feces thus prevented from escaping must if irratating eventually do damage. Speculations as to the possible sequel in dysentary or appendicitis are of little value. It is worth while to note however that evidence obtained by digital examination, as already described, would not necessarly be set aside by that secured by antopsy or through operation under anaesthesea, in either of which conditions the swelling might have subsided before inspection. This may be the reason why in operations for appendicitis, the large bowel is often reported to show no symptoms whatsoever of disorder when it could hardly be innocent of some part in the causation. A tense swelling which, in the rectum disturbs cerculation enough to cause piles, might surely, occuring in the appendix and adjacent cecum, cause ulceration in the presence of irratating bowel contents.

The Alabama Medical Journal, November, 1907.

Infant Feeding:—Dr. W. W. Betterworth believes that maternal feeding is beyond question the best food for the infant under one year of age; it is the food especially adapted to the needs of the infant; breast fed babies are healthier more vigorous and more resistant to disease than bottle fed babies, for while the milks of mammals

have certain charateristics in common in that they contain fat sugar protieds mineral salts and water and while for all practical purposes the sugars are the same such is not the case with the fats and especially is this true of the protieds, and herein, lies one of our greatest difficulties, that of adopting the protieds of cow's milk to suit the digestive capacity of the young child. The full-term baby has a premature stomach; time and a proper food are required for it to complete its physiological developement. The early secretion of the breast, the colostrum acts as a stimulant to the digestive organs. This period usually lasts a week or ten days, and is gradually replaced by milk having a fairly uniform composition during the balance of the nursing period. The earliest secretion of the stomach is rennet, and this ferment acting upon the casein forms a flocculent precipitate calcium paracasein, which after passing into the intestines is digested by the pancreatic and intestinal secretions Hydrochlric acid is soon secreted which, combines with the calcium of the paracasien clot, forming free paracasein and a firmer curd results. This curd is now acted upon by pepsin and true stomach digestion is inaugerated. When the infant fails to make a weekly gain in weight or shows persistant sings of indigestion an analysis of the milk should be made. In obtaining breast milk for analysis the middle milk or better still all the milk from one breast should be secured. For all purposes the Babcock or Holt method may be used in determining the fat percentage. The sugar percentage varies very little and can be disregarded. Knowing the specific gravity and the fat percentage an approximate estimate of the protieds may be made or a Williams Scale will indicate the protied percentage. An excess of fats or protieds often causes digestive disturbances Regurgitation or vomiting of an acid fluid suggests an excess of the former while colic and stools containing curd indicate too high protieds, an insufficiency in quantity or quality of the milk will be associated with much fussing constipation, and either a loss of weight or a failure to make a weekly increase.

The Southern Practitioner, Nov., 1907.

Open Method of Treating Fractures:--- Dr. D. Eve agrees with Dr. I. H. Keely, who states "that while it is not advisable or necessary to operate in all closed fractures yet there are certain bones which, when fractured generally demand operative interference if we would obtain the best anatonical and functional results. many authorities still maintain that no closed fracture should be converted into an open one, but there are some fractures in which even the most conservative surgeons will admit that, were it not for the danger of sepsis intervening, better functional results could be obtained by operation. In all cases in which marked communition of the fragments is present and when reduction is impossible in oblique and spiral fractures of the bones of the extremities operative intervention is justified. Many of the deformities pseudoarthroses and loss of function seen to follow fractures will thus, in most instances be obviated. The unsightly deformities which so seriously destroy the usefullness of the part and predispose to refracture will be prevented. Under this heading may be included fractures in which pressure is brought to bear on neighboring vescera, nerves and blood vessels, fractures associated with dislocations, and fractures involving joints."

By exposing the seat of fracture, the accumulated excess of blood or effused serum can escape, and at the same time permit the removal of any soft tissues that may be between the ends of the bone. Furthermore, in case of a comminuted fracture, the surgeon can remove loose fragments of bone which have become entirely separated from their periosteal covering. The technique after obtaining most thorough cleanliness is to make an incision large enough to enable the surgeon to deal effectually with the fragments. It should be made also in a location, which will make a minimum chance of injuring important structures and give easy access to the ends of the bone. The skin should be excluded from the wound by attaching sterile cloths to the cutanious margins by clamps. After exposing the fragments they should be carefully examined and all clots and intervening structures removed and accurate opposition secured. Manipulation and extension with leverage may be necessary, and powerful forceps such as Peters may be found of great advantage to temporarily retain position while silver wire absorbable sutures silk-worm gut screws or clamps, etc., are employed to perminently maintain co-aptation. If much oozing is expected a drainage tube may be inserted before the wound is closed. An immoblizing dressing should then be applied to the part.

The Southern Clinic, Nov., 1907.

Additional Experience With a New Proceedure in Operating for Ano—Rectal Fistula--: By Dr. J. R. Pennington.

The Louisevill monthly Journal, Nov., 1907.

The Relations Between the Medical Profession and the People:---By Dr. H. H. Grant.

Texas Medical Journal, Nov., 1907.

The Moralities of Medicine:---By Dr. C. M. Rosser.

Book Notices.

Journal of the Elisha Mitchell Scientific Society. Issued quarterly. Vol. XXIII, No. 3. Nov. 1907. Chapel Hill, N. C,. U. S. A.

When Things Were Doing. By Col. Steere. Chicago, Chas. H. Keer & Company, 1908.

Modern Medicine. Its Theory and Practice. In original Contributions by American and Foreign Authors. Edited by William Osler, M. D., Regius Professor of Medicine in Oxford University, England; formerly Professor of Medicine in Johns Hopkins University, Baltimore: in Oxford University of Pennsylvania, Philadelphia and and in McGill University, Montroal. Assisted by Thos. McCrea, M. D., Associate Professor of Medicine and Clinical Therapeutics in Johns Hopkins University, Baltimore, In seven octavo volumes of about 900 pages each, illustrated. Volume III, just ready. Price per volume: cloth, $6.00, net; leather, $7.00, net; half-morocco, $7.50, net. Lea Brothers & Co., Pub, lishers, Philadelphia and New York-1907.

The appearance of the third volume of Osler's Modern Mediciae marks the steady progress of this great work toward completion. In this volume the grand dicision of Infectious Diseases is concluded, aud space is found for equally full consideration of Diseases of the Respiatory Tract. The fourth volume, now going through press, will cover Diseases of the Circulatory System and Blood. The fifth will deal with the whole great subject of Diseases of the Alimentary Tract. The sixth is to group Diseases of the Kidneys, those associated with internal Secretion, those of still obscure causes, the Diseases of the Muscles, and Vaso motor and Trophic Disorders. The seventh and final volume completes the entire subject by covering Nervous and Mental Diseases. The conveniences of this grouping is manifest.

That an authorative work presenting the whole field of medicine in its advanced state of development is required by the progress of recentlyears is a proposition that cannot be gainsaid. To question it implies that the questioner has not kept in touch with the radical changes, the more elevated viewpoints, the more accurate methods and the the improvements in details of the practice which have combined to extend the scope of medicine and make it an exact and successful science instead of an empirical and uncertain art. Such an era of progress is with us now, and every practitioner desirous of maintaining his position and doing his duty to his patients must needs take cognizance or drop astern. It is fortunate for those acively engaged in practice that they can sot readily gain this new knowledge combined and fitted in with what has been inherited from the past and has survived the ordeal of modern re-examination. This service is being performed for them in this work under ideal auspices, for no editor could have been chosen with a broader view of medicine in all its bearings than is possessed by Dr. Osler, nor with a keener knoweldge of the best man to call upon for each constituent section. The phenomenal sale argues wide appreciation of the advantage of possessing a complete library and reference work presenting the net medicine of the new era, disembarrassed of outworn ideas, and covering the whole subject with the highest authority and practicality.

Diseases of the Nose and Throat. By D. Braden Kyle, M.D., Professor of Laryncology and Rhinology, Jefferson Medical College, Philadelphia Fourth Edition, Thoroughly Revised and enlarged. Octave volume of 725 pages, with 215 illustrations, 28 in colors. Philadelphia and London: W. B. Saunders Company, 1907. Cloth, $4.00 net; Half Morocco, $5.50 net.

Dr. Kyle's work has undergone a thorough revision, many new subjects have been added, other subjects practically rewritten, and new illustrations included. Among the new subjects and those rewritten are: Catching Cold, Lithemic Rhinitis, Chemic Ulcers, Lipoma of the tonsil, Fibromyxoma of the Nasopharynx, Carcinoma of the Larynx, Sarcoma of the Nose, Glioma of the Nose, Telangiectoma, Syphilis of the Septum, Angiomyxoma, and Angioma of the Septum, Bone Cysts of the Accessory Sinuses, Rhinopharyngitis Mutilans, Anæsthesia of the Tonsil' Glandular Pharyngitis Lateralis, Vincent's Angina, Angina Ulcerosa, Benigna, Cyanotic Pharyngitis, Angioneurotic Edema, Pharyngeal Aneurism, Cough, Purpura Hemmorrhagica, Congenital Stridor, Scleroma of the Larynx, Bron-

choscopy, Voice and Speech defects and Functional Aphonia, is precisely up to date in every way.

Atlas and Text-book Human Anatomy. Volume III, completing the work. By Prof. J. Sabotta, of Wurzburg. Edited, with additions, by J. Playfair, McMurrich, A. M., Ph.D., Professor of Anatomy at the University of Toronton, Canada. Quarto of 342 pages, pages containing 297 illustrations, mostly all in colors. Philadelphia and London: W. B. Saunders Company, 1907. Cloth, $6.00 net; Half Morocco, $7.50 net.

This volume completes the work consisting of three most useful and attractive volumes by one of the world's most distinguished anatomists. The fact also that Dr. McMurrich has edited this American edidition adds to its value. Volume III includes a part of the vascular system, the entire nervous system and the organs of special sense. The peripheal nerves and vessels are depicted, as the dissector sees them, together in the same region. The illustrations are in color and they are most accurate. The student will find these atlases most useful in the dissecting room where upon a single page will be shown the great majority of the structures in a single layer of the dissection.

To the medical Student and physician the work will prove most helpful since it includes what will be helpful and excludes too great minuteness of detail which would prove confusing rather than instructive.

The great wealth of the lithographers art as shown in these pages has not been surpassed. As an example of the bookmakers skill the work is a credit to the publishers.

The Treatment of Fractures. With Notes Upon a Few Common Dislocations. By By Chas. L. Scudder, M. D., Surgeon to the Massachusetts General Hospital. The new (6th) Edition, Enlarged. Octavo volume of 635 pages, with 854 original illustrations. Philadelphia and London: W. B. Saunders Company, 1907. Polished Buckram, $5.50, net; Half Morocco, $7.00 net.

Over 25,000 copies of this remarkable work have been sold, and the advance orders for this new sixth edition indicate that Dr. Scudder's work is destined to break all records in the medical publishing field. This edition has been carefully revised and much new matter added. Especial attention has been directed to obstetric skull fractures of the newborn; to fractures of the zygoma, of the malar bone, of the superior maxilla, of the head and neck of the radiusl of the neck of the femur, and the carpa, scaphoid; to unreduced dislocations of the elbow; to acromioclavicular dislocations; to pathologic fractures; to old fractures of radius, and to Volkmann's contracture. Over one hundred new illustrations have been added. Scudder's Treatment of Fractures is coming to be the standard of excellence in America.

The Principles and Practices of Modern Oltology. By John F. Barnhill, M.D., Professor of Otology, Laryngolgy, and Rhinology, Indiana University School of Medicine; and Ernest de W. Wales, B.S., M.D., Associate Professor of Otology and Rhinology, Indiana University School of Medicine. Octavo of 575 pages, with 305 original illnstrations. W. B. Saunders Company, 1907. Cloth, $5.50 net; Half Morocco, $7.00 net.

The very latest authority on the subject of diseases of the ear. The objects of the authors are clearly stated as follows: (1) to modernize the subject; (2) to correct certain traditional beliefs; (3) to advocate the earliest possible prophylaxis and treatment; (4) to emphasize the importance of a thorough examination and a definite diagnosis as a basis for rational treatment; (5) to thoroughly illustrate the text. How well they have succeeded is perfectly evident to the reader. The work is a clear and concise discussion of the subject.

The authors, in writing this work, kept ever in mind the needs of the physician engaged in general practice. It shows the results of personal experience as practitioners and teachers. Much space is devoted to prophylaxis, diagnosis, and treatment, both medical and surgical. Great pains have been taken with the illustrations which are as practical and helpful as it is possible to make them, and at the same time they are highly artistic. A large number represent the best work of Mr. H. F. Aiken. It is the latest work on the subject.

Sexual Instinct.—Its Use and Dangers as Affecting Heredity and Morals. By James Foster Scott, A.B. (Yale) M.D., C.M. (Edinburgh). Late obstetrician to Columbia Hospital for Women, and Lyng-in Asylum, Washington, D. C.; late Vice-President of the Medical Association of the District of Columbia, etc., etc. 2nd Edition, Revised and enlarged. 8vo. 474 pages, Ill. Cloth, Postpaid, $3.00. E. B. Treat & Co., Publishers, 242-243 West 23rd Street, New York.

A large part of the guidance of human conduct belongs to the medical profession. By teaching the laws of preventive medicine, of hygiene, of quarantine and by pointing out the need of bodily cleanliness,

and the danger of filthiness and dissipation and vicious or careless modes of life the physician exerts a powerful influence. Those who have been educated concerning their customs, amusements, and general rules of life cannot stray far from the path of right.

This work by Dr. Scott is unique. He deals with a subject which requires skillful treatment and he has accomplished this end in a manner which can give offense to none. The book should be read by every doctor; it will give to him points of view that cannot fail to help him in teaching the masses. If he succeeds in but an isolated instance, because of the help acquired through Dr. Scott's book, it means that some good has been accomplished.

The demand for a second edition of such a work is evidence of the esteem in which it is held. If it could be placed in the hands of every man in America a marvelous change must soon be seen in human nature.

Empire Builders. By Francis Lynde. With illustrations by Jay Hambridge. Indianapolis. The Bobbs-Merrell Co.

A very readable book whose hero is a far-seeing, big-hearted, irrepressible young son of the west, who hits upon a gigantic railroad scheme and carries it through single-handed, in spite of the desperate opposition of a strong ring of capitalists and politicians whom his success will ruin. The story of how he accomplishes all this, builds up a fortune and wins the railroads president's niece for a wife, makes a strong story although one could almost wish that part of the story had been omitted. The simple story of the fight for the right is quite enough.

Maternity. A book for the lay reader, the medical student, the trained nurse. By Henry D. Fry, M.D., Sc.D. 12 mo. cloth; Price $1.50 net; postage, 10 cents. The Neale Publishing Co. New York and Washington.

Dr. Fry has written a book that will eliminate ignorance. "Maternity" is a needed book, a valuable book, one that will bring comfort and help to mothers and to women who are looking forward to approaching motherhood with all the dread of ignorance, the utter helplessness of fear. In other words, Dr. Fry's book will dissipate darkness by increasing light. It will enable expectant mothers to think of childbearing, not with apprehension and pain, the unspeakable mental distress that too many of them now suffer, but with the beautiful assurance of knowledge.

The Race for the Emporer's Cup, By Paul Eve Stevenson. With illustrations. New York. The Rudder Publishing Company. 1907.

A description of the race across the Atlantic for a cup, whose donor is no less a person than the Emperor of Germany, and of the boats which engaged in the contest. Well written certainly and doubtless vastly interesting to the yachtmen, but to the landsmen of more or less questionable value.

The Mind of the Master, or The Nervous of Jesus. By Salvarona, Associate of the American Institute for Scientiffc research. Illustrated; 12 mo.; 100 pages. Paper, 50c. net. Cloth, Gold Title, $1.55 net, by mail. Postage 5c. Publishers' Trade, pap. 42c. Henry G. Walters, Publisher, Langhorne. Bucks, Co., Pa.

The Physician's Visiting List for 1908. Fifty-seventh year of its publication. P. Blakinton's Son & Co., Philadelphia, Pa. Price $1.00.

Lindsay & Blakiston's Physicians Visiting List is too well known to doctors to require any detailed description. It is one of the best and most convenient. Containing data in concisely accurate form, it is valuable as a pocket companion. The Dose-table has been revised in accordance with the New Pharmacopoeia.

Anarchism & Socialism. By Geo. Plechanoff. Translated with the permission of the author by Eleanor Marx Aveling. With an introduction by Robert Rives LaMonte. Charles H. Kerr & Co., Chicago. 1908.

The Reublic. By N. P. Anderson. Chas. H. Kerr & Co., Chicago. 1908.

A dialogue discussion of social and economic problems from the Socialist's standpoint.

Marxian Economics. By Enterest Untermann. Chas. H. Kerr & Co., Chicago. 1908.

An introduction to the work by the great Socialist, Marx, on "Capital."

Merck's 1907 Index. Third edition. An Encyclopedia for the Chemist, Pharmacist and Physician. Octavo, pp. 472, Merck & Co., New York.

This book gives the names and synonyms. source of origin, chemical nature and formulas, physical form, appearance and properties, melting and boiling points, solubles, specific gravities and methods of testing, therapeutic uses, modes of administration application, ordinary and maximum doses, incompatibles, antidotes, special cautions, hints on keeping, handling, etc., of the

chemicals and drugs, used in chemistry, medicine and the arts.

The crude drugs of commerce, have been added and under each drug are indicated the poses of the extracts, tinctures, etc., as in previous editions. Specific gravities are given at 15 degrees C. and in many cases, following the U. S. Pharmacoepia, they are also at 25 degrees C.

As the index is not intended to be a price list, no prices are given, but instead, comparative values are stated for convenience.

A valuable book for constant use for every practitioner.

Willcome's Excerpta Therapeuta. Burroughs Willcome & Co., London, New York, Montreal, Sidney, Cape Town.

Containing a list of the valuable drugs and preparations made by this very reliable firm. A convenient and handy *vade mecum* with a list of diseases and indications for treatment, diet tables, etc.

International Clinics. A quarterly of Illustrated Clinical Lectures and especially prepared original articles on Treatment. Neurology, Pediatrics, Obstetrics, Gynecology, Orthopaedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and other topics of interest to students and practitioners. Vol. IV, Seventeenth Series, 1907. Edited by W. T. Longcope, M.D., Philadelphia, U. S. A. J. B. Lippincott & Co., Philadelphia and London.

Every issue of this Quarterly is brimful of interest. The articles are selected from the best work of the whole world by men who are capable of discrimination in the matter of excellence. Comment is scarcely necessary since the International Clinics are known so widely.

Transactions of the Indiana State Medical Association. Fifty-eighth annual session held at Indianapolis. May 22-24. 1907. Dr. A. W. Brayton, Indianapolis, Secretary.

Squibb's Materia Medica. 1908 Price List. Published by E. R. Squibbs & Sons. New York. Brooklyn.

A complete alphabetical List of the products of the house of Squibb, embracing the articles in the U. S. Pharmacopoeia and the National Formulary, together with the non-official chemicals, Pharmaceuticals, Tablets and newer remedies in general use. It sets forth their origin, Latin and English titles, Synonyms, Physical and Chemical characteristics, incompatibles, antidotes, therapeutic indications, doses, etc.

Abstracts of the Leading articles of the month.

The Diagnosis of Chronic Valvular Disease of the Heart.

Carr, the Practitioner, includes in his study only the lesions of aortic and mitral valves. The first step is to recognize obstruction or incompetence or both alone or more of the orifices. Next one must see which valve or valves are affected, the murmur, the time in the cardiac cycle, the place where best heard, the lines of conduction. Next the cause must be investigated, whether it be rheumatic or degenerative, and in aortic cases whether it is of syphilitic origin. Next one must determine the extent to which the affected valve is damaged, this being mainly determined by the amount of enlargement to which the vavular lesion has given rise. Next one must find out whether the lesion is properly compensated, only precautionary measures being necessary as long as compensation is satisfac tory. Accuracy in diagnosis is chiefly necessary for purposes of prognosis and treatment, and only when the foregoing data have been determined can the latter be successfully carried out.

Inguinal Hernia in Children.

Clogg, (the Practitoner,) has not observed a case of direct hernia in children. The indirect he divides broadly into the congenital and the acquired accordinfi to the aetiology of the sac. The repeated investigations of the interior of the sac has led the author to believe that the cause of hernia is an attempt on the part of Nature to obliterate a congenital processus vaginalis, that is, the sac in hernia is of congenital origin, in children, quite apart from the age of the child. The author's classification of hernia in children includes (1) sacs which consist of the whole of the processus vaginalis, total funicular sacs. If these conditions are due to a congenital sac, they can only be cured by the removal of the sac. A truss is unlikely ro produce any change in the sac. The only cure for hernia which has been seen after the first few weeks of life is by operation, and the earlier the operation is performed, the better, after a child has been weaned. Indicasions for operating earlier than this are (1) strangulation, (2) two or three attempts at strangulation with difficult reduction, (3) large hernia, especially caecal hernia, which cannot be prevented by a truss from descending.

The Resetioa of Large Nerve Trunks Without Paralysis.—Roeder (Deutsche Medizinische Wochenschrift) says that a

number of instances have been reported in which the resection of peripheral nerve trunks has not been followed by the usual sequelae. As cases of this sort are still very rare, it is advisable to collect all the evidence possible bearing on the subject. So far there is no satisfactory explanation of the occurrence. It has been suggested that, somewhat as is the case with the blood vessels, collaterals may form and take up the function of divided nerves. Goldman believes that in cases in which the continuity of the nerves has been destroyed by neuromas, the damage to the nerve was congenital and was compensated for during intrauterine life by the development of new branches bridging the gap due to the neoplasm. In the author's own case two neuromas were removed from the upper arm and shoulder of a young woman. In order to extirpate the the tumor in the former situation it was necessary to resect a portion of the ulnar nerve with which it was intimately related. It was expected that paralysis would follow, and the distal end of the was grafted into the median nerve trunk, but the next day on removing the dressing it was found that the patient had perfect control of the extremity. A year later another similar but much larger growth was removed from the pelvis and in so doing the anterior crural nerve had to be sacrificed. Here again no impairment of function followed and the patient while recovering from the anaesthetic moved the member in all directions. A similar observation was made in connection with the removal of a smaller growth in the neck, involving the spinal accessory nerve.

Medical Egotism.

We desire to call attention, for the purpose of severely condemning it, to a highly objectionable feature that appears to be increasingly common in the writing of medical men, particularly of those who write from a clinical standpoint, namely, the habit of blatantly extolling their own success in diagnosing or treating a case in contrast with the reputed failure of some other man or men. To be sure the vaunt is usually hidden behind the ostensible enthusiasm if the writer for some special method, or drug, or theory, but the egotism is very thinly veiled. To judge from the style or some of the contributors to medical literature, all that ever went before them in the handling of the particular subject in question were fools and ignoramuses. They indulge in a specially luxuriant cud-chewing over an assertion that the case was wrongly or unsuccessfully dealt with by some physician or surgeon of prominence efbore coming under their effective care.

"This patient had previously been under the care of two eminent specialists, one of them a professor in one of our leading schools of medicine." "During several years of his sickness different physicians had treated the patient for heart disease. My records show that after five treatments under my method for gastritis he was completely relieved of his heart disease." Such are examples of the objectionable practice referred to. It is as gratuitous as it is objectionable. No useful purpose is served by it. It adds nothing to the real scientific value of the observation, or the method, or the prescription, or whatever it is that is being reported, that the patient had previously been treated without success by a professor in college, even if the statement were true—it is usually based entirely on the garrulous gossip of the patients themselves. who are notorious fabricators in regard to their ills and experiences. If the plan of procedure or the agency of the cure advocated possesses any genuine intrinsic merit this will sufficiently appear upon a plain statment of the facts; and if there be any credit due to the demonstrator in virtue of his initiative in the matter, that will also be far more effectively compassed by a calm and dignified narration of the circumstances.

Of all the elements in the character and modus operandi of charlatanrylin medicine, none is more offensive than the blatant egotism that is expressed in the sentence which in substance if not in so many words, invariably forms the culmination of the quack's highly colored advertisement, "After all others have failed, comeand see me." The secret of its peculiar offensiveness is akin to that which makes the appeal to passion so disgusting; it is human nature run hideously to seed. It represents an integral part of the quack's knowledge of human knowledge, and his base play upon it.

It is natural, and, to a certain extent, laudable, for a man to believe in himself, and especially when he thinks he has discovered or worked out a superior method of action to confidently proclaim and hold it against the seeming contradictions of former experience. Not only is it natural and praiseworthy for a man to believe in himself, but the public has faith in the man who has faith in himself. The quack, realizing those qualities of human nature, and knowing that with the ignorant one cannot lay the colors on too thickly, purposely overdoes the thing. Everyone else but he, in his line of work, is a conventional ass; he is the only original and intelligent pathfinder who has had the daring and acumen to strike a new and direct way. "When all others have failed, come to me."

This kind of a spirit has always been held, and rightly held, to be the prime heresy of science, and peculiarly of medical science, whose nature and motif consist in the service of weakness and suffering. Its repudiation, together with the criminality of creating a demand for medical service, forms the groundwork of the strong code which prevails against advertising by medcal men. There is no more excuse for the exhibition of such egotism in the promulgation of new knowledge to the profession itself than in the physician's dealing with the public. There is no place in medical science for the covert sneer at another man's opinions of or practice, or for the exploitation of an "exaggerated ego." We care not whom our shaft may chance to hit in this matter. The greater the offender, the more reprehensible the offense. As a matter of fact, however, we are bound to say that the big men are not as a rule the perpetrators of this particular crime, albeit there are some prominent lights of the profession who are habitually guilty. Of all men the scientist shold be of humble mind and a modest spirit. If his discoveries and theories are of the truth, they will prevail. They will not the more strongly prevail because he bolsters them up with petty egotism and uncalled for discredit of others. The intrinsic and enduring value of a man's work is tha only legitimute door to merit and honor; all that climb up some other way, the same are thieves and robbers.—Medical Standard.

Blood Pressure in Fevers.

Davidson (Lancet) has made a study of this subject. In scarlatina he found that the blood pressure curve very similar to those of the pulse and temperature. In general it continued to fall until the seventh or eighth day of the disease, at which time it usually passed below the normal line. In about 5 per cent. of the cases it remained normal throughout the entire disease. In the severe cases of scarlatina of the anginose type, the pressure fell as the toxemia increased, in spite of cardiac stimulation. In scarlatinal nephritis the blood pressure is raised during the period of albuminuria. The rise often occurs before the albumin appears. In diphtheria a reduction was found in every case depending largely if not entirely on the degree of toxemia. In antitoxin injections a rise appeared in temperature four or five hours after injecton, but the vascular pressure was found in almost every case to be either reduced or the same. In general this reduction appeared in a few minutes and passed off within an hour. In typhoid fever the blood pressure is always considerably lowered, the dimunition progressing steadily the longer the longer the continuation of the case, and it rises again only on the establishment of convalescence or the occurrence of some acute inflammatory complication. In all all such operations it is evident that we must carefully distinguish the changes attributable to the fever itself from those which are merely secondary to the pyrexia.

A Case of Land Scurvy.

The Lancet reports the case of a woman in whom the malady occurred after she had been for a prolonged period, an inpatient of a hospital and as a complication of fistula in ano. She was admitted to the hospital with an unhealed fistula wound with a copious purulent discharge. A first operative attempt was made to clear the wound but its progress toward healing was unsatisfactory and in a few weeks she began to have sore mouth, swollen gums, intermittent fever, bleeding from the gums, and from the rectal wound, purpuric rash, etc. She was at once put on an anti-scorbutic diet (in addition to indicated medical measures) and began to improve in every way. Associated with this general bettesment, the wound condition improved, the separative power of the tissues increased, and in the course of a few weeks she was able to leave the hospital, if not cured, at least very considerably improved. The author notes three points of interest in the case. (1) The occurrence of scurvy in a patient whose food had been the same as customary among people of her class, for on special inquiry she stated that she was in the habit of taking plenty of good and fresh food. Moreover, she had been in hospital a month, where her diet was a plentiful one of milk, beef-tea. custard, jelly, and so on, before the onset of tha scorbutic symptoms. (2) The possibility of the retardation of healing seen in certain forms of long standing "callous" wounds beiag due to a scorbutic diathesis. (3) The possibility of the long-continued suppuration and mental distress being the cause of this diathesis, a vicious circle thus being produced.

An Operation For Embolus.

Handley (British Medical Journal September 1907.) reports an attempted removal by operation of an embolus lodged at the bifurcation of the abdominal aorta. There are was a temporary restoration of the blood current in the femoral artery. The author regards the case as one of those pioneer failures on which ultimate success so often rests. His patient was a man of sixty-five years, in whom the embolism followed an operation for hernia. He had but little atheroma, but was emphysematous and extremely gouty. Thirty-six hours

after operation the whole limb was cold and no pulse could be found in the common femoral artery. A vertical incision three inches long was made over the left common femoral artery with its center at the origin of the profunda femoris. The external circumflex branch of the profunda was exposed, ligatured, and divided transversely on the proximal side of the ligature. No bleeding occurred—a fact of ill omen, since it showed that secondary thrombosis of the arteries of the limb had occurred below the point of obstruction. A flexible tube about the size of a No. 4. catheter was passed upwards through the divided proximal end of the circumflex artery into the common femoral artery. The end of the tube was connected to an aspirator, and some soft blood clot was sucked up into the tube. No blood flowed, and the tube was withdrawn. It was decided to attempt to dislodge the obstruction by a stream of saline solution. In order to obtain better access and a freer reflux, it seemed necessary to divide as large an artery as was compatible with the subsequent maintenance of nutrition in the limb. The profunda femoris was, therefore, divided at its origin and its distal end ligatured. The abdominal aorta was compressed at the level of the umbilicus through the abdominal wall, so as to safeguard the right common iliac from the obstruction. A Kelly's ureteral catheter was now introduced the divided proximal end of of the profunda artery. It was cautiously passed upwards along the common femoral, the external iliac, and the common iliac artery until, as judged by previous measurements on the skin, it had reached the bifurcation of the abdominal aorta. A forcible stream of saline was sent through the catheter, and returned freely through the divided end of the profunda. The point of the catheter was moved about within the artery, so as to detach the clot within it. Some fragments of recent clot escaped, but relaxation of pressure on the abdominal aorta was not followed by a jet of blood. The arota was again compressed, and the washing out process was continued. Relaxation of the pressure on the arota was now followed by the escape through the divided profunda of a forcible pulsating stream of bright red blood. An attempt was next made to clean the lumen of the superficial femoral artery. The common femoral artery was compressed. A small incision was made over the popliteal artery, and one of its branches was divided so as to provide a point of outflow for the saline solution with which the operator proposed to flush out the artery from above. The catheter was passed easily in from the divided end of the profunda downward along the whole length of the superficial femoral artery, and almost as far as the bifurcation of the popliteal. Unfortunately the general condition of the patient, desperate to begin with, forbade further persistence. The catheter was withdrawn, and the divided branch of the politeal was ligatured. On removal of compression from the common femoral no blood flowed. and it was evident that the obstruction higher up had only been partially and temporarily displaced. Had the patient's condition allowed the surgeon should have attempted to pass long crocodile forceps up to the bifurcation of the arota, to seize the clot, and to drag it out, a proceeding which is certainly practicable. Under the circumstances, the divided ends of the profunda were tied off, and the skin divisions sutured. The patient died twenty-four hours later in a typhoid condition, with commencing gangrene of the limb. At the autopsy, the left auricle contained a shred of ante-mortem clot in one of its recesses. The orifice of the left common iliac artery was blocked by a decolorized and adherent mass of clot which exhibited transverse markings apparently corresponding to the musculi pectinati of the auricular appendix. The clot projected some little distance into the abdominal aorta. Below it the arteries were filled by soft, non-adherent clot. The rest of the post-mortem appearances not be detailed. The The herniated intestine had retained its vitality, but the lower part of the large intestine was intensely congested and its vessels were filled by ante-mortem thrombus. Evidently one or more emboli had lodged in the arteries of the portion of the gut.

A Case of Cerebellar Hemorrhage.

Ingalis and Fenwick (British Med. Journal) report the case of a woman of twenty-six years who was admitted to the hospital in a semiconscious condition. She had a recent numbness over the left lower face. sloght headaches, and occasional giddiness. She imwroved but a few days later became semi-conscious and was sent to hospital. Speech was then unintelligle. She swallowed slowly, had no fever, aural discharge, was not deaf, could protude her tongue, and had normal pupils. The right patellar reflex was exaggerated, the left normal. There was no ankle clonus and no rigidity of the head. The left arm and leg were partially paralyzed, but there were no twitchings or convulsions. Urine was normal. Three days later, slight left ptosis was noted, the pupils became widely dilated' insensitive in the left, and sluggish in the right. Left arm could not be moved. A curious habit of shaking the bed as if in play came on. On the fifth day after ad-

mission she was in the same semi-conscious condition. Babinski's sign was well marked and breathing was stertorous. The head and eyes were turned to the right. Three days later Cheyne-Stokes respiration, asthenia, rising temperature, and rapid pulse were noted. She died eight days after admission. Autopsy showed that the surface of the brain was deeply congested, but there were no adhesions between the pia and dura mater. The dura mater was adherent to the skull-cap. At the base of the skull the meninges were densely adherent, especially in the middle fossa. On removing the brain a small clear cyst, the size of a split pea, was seen lying at the posterior extremity of the pons on the right side, overlapped by the cerebellum. They had no apparent connection with any deeper structure, as it was removed at a touch. The brain was normal except for general congestion. but in the right side of the cerebellum a cavity about one inch in length, which would just admit the tip of the little finger was found. This cavity was filled with old blood clot adherent to the walls of the cavity. The brain tissue over this area was extremely friable. No terombosis or embolism was found, and we could not detect any disease of the vessels. The author summarises some of the previously reported cases similar to their own.

Indications for Rupture of the Membranes

Rudaux (La Clinique) points out that the bag of waters is the most important agent in the dilatation of the cervix uteri, and should be kept intact, whether the head is engaged or not, so long as the contractions are normal and the dilatation incomplete. Therefore, when making a vaginal examination during a uterine contraction, the finger must not be allowed to press upon the membranes whilst they are tense, as there is a risk of causing premature rupture. Further, it is to be noticed that this tension of the membranes is apparent before the patient experiences the pain of the contraction, and calls attention to it. There are a variety of cases in which a rupture should be effected before the completion of dilatation. When the uterus is abnormally developed, either by excess of amniotic fluid, or by a multiple pregnancy, or by a very large fetus, it may happen that dilatation which has been progressing favorably becomes stationary, whilst the contractions continue or cease altogether. Under these circumstances, rupture of the membranes will cause the labor to resume its usual course.

When permanent tension of the membranes is diagnosed, the same indication exists, and the same result follows. In such cases there is no protrusion of the sac, the presenting part is well engaged in the pelvis, and the membranes are often very adherent to the lower uterine wall. The sac does not fulfill its physiological function, and prevents the fetal head, for the presentation is nearly always a vertex, from supplying its place.

Early rupture is advisable when the presentation has a tendency to displacement and is liable to become transverse, also after version by external manipulation when it is difficult to keep the fetus in the desired position. Unless the membranes are ruptured a prolapse of the cord can hardly be successfully dealt with, the funis must be carefully replaced behind the presenting part, which then descends, and further danger is avoided.

The most immediate indication for rupture is hemorrhage due to a placenta previa. If a large rent is made in the membranes they will cease to pull upon the placenta, and the additional pressure of the descending part will stop the bleeding. There should be no hesitation in rupturing when the condition of the mother or child calls for a speedy termination of the labor. Intervention is often required in twin pregnancies, since the second ovum may remain intact, the uterus being too much exhausted to overcome the resistance of sac. When the sac does not rupture with strong contractions and after the completion of dilatation, there is no reason to wait. It is in the interest of both mother and child to bring labor to an end as soon as possible. Waiting favors a dissociation of the amnion and chorion, and may produce retention of the membranes during delivery.

Attempted Induction of Abortion by Intrauterine Injection of Fehling's Solution.

Tantzcher (Zentralbl. f. inn. Med.) states that a nurse, after missing two menstrual periods, attempted to induce abortion by the intrauterine injection of Fehling's solution. The syringe used was of I-gram capacity, and was fitted with a nozzle suitable for urethral injections of cocaine. Shortly after the injection she was seized with severe abdominal pain and repeated vomiting. About midnight—fifteen minutes after the injection—the pulse was 52 and irregular. The pain became worse, and the patient was in constant dread. The cardiac sounds were faint and separated by distinct intervals, but were othhrwise normal. Respiration was unaffected. The skin was cool. The pulse became more regular after hypodermic injections of camphor and morphine, but remained infrequent—48 to 52. The temperatvre was subnormal. At I a. m. undigested, slimy, brownish masses of rice were vomited.

There was no uterine hemorrhage. At 3 a. m. the pulse had almost regained its normal regularity, but was still infrequent. At 3:30 it was 64, at 5:30, 86; the temperature had risen to 97.7 F. Later in the morning a slight hemorrhagic discharge from the vagina occurred. The urine contained red and white blood corpuscles, and renal, ureteral, and vesical epithelium. There was slight smarting on micturition; no casts were present. The quantity of urine was at first normal, but on the fourth day was reduced to 10½ oz. Latter the amount again became normal, and on the fifth day the previously hemorrhagic urine regained its normal appearance. There then a few leucocytes and some renal and ureteral epithelium, but no red corpuscles. A number of hyaline casts were found. On the tenth day the urine was normal in every respect. The acuteness of the onset of symptoms was somewhat alarming, but otherwise the patient was never in danger, and recovered rapidly. Nothing but a few clots were found in the vaginal discharge, and it could not be determined whether pregnancy had been interrupted. When the patient was discharged from hospital the size of the uterus corresponded to that of a two months' pregnancy.

The symptoms of poisoning by solutions of salts of copper are said to be cauterization of the buccal mycosa, salivation, tympanites, green vomit, and brownish-red watery stools. The pulse is small and the skin cold. In severe cases these symptoms may be followed by jaundice, paresis of the limbs, and collapse. Most of the copper is excreted by the liver, but, according to v. Jaksch, the kidneys almost always present signs of toxic nephritis. The fatal dose of copper, when taken per os, is said to be 154 grains to 184 grains of the acetate and 154 grains to 308 grains of the sulphate, though Hoffmann states that less than 10 grains of the sulphate may produce symptoms of poisoning. In this case less than one-twentieth of this amount produced alarming symptoms, 1 gram (about 17 minims) of Fehling's solution containing 0.034 gram, or slightly more than ½ grain, of copper. Evidently intrauterine injections in animals, which are followed by toxic nephritis. The urine becomes scanty, and usually contains albumin, and frequently blood. In animals paresis of the limbs is one of the most prominent symptoms. Whether this was present in this case could not be determined.

Acute Torsion of Both Fallopian Tubes.

Michel (Compets rendus de la Soc. d'Obstet., de Gyn. et de Pediatr. de Paris) reports that a married woman, aged thirty-five, twice pregnant, and without any history of pelvic disease, was seized with violent hypogastric pains a few days after a regular period. They remained very intense for a few hours, and the patient felt faint. Acute appendicitis was diagnosed, the pains subsided, and the patient was able to attend to housework, when a second attack of acute pain occurred within six weeks. Michel detected a swelling in the right iliac fossa, and another occupying left and posterior fornix. He was inclined to believe that the masses represented retrouterine hematocele, recurrent, as is often the case, and it happened that profuse menorrhagia accompanied the second attack, increasing his suspicions. Abdominal section was undertaken in preference to colpotomy. The swellings proved to be dilated and obstructed tubes—the right, twisted four turns, was thinwalled and contained clear fluid; the left, twisted three turns, was thicker and contained blood. There was no evidence of tubal gestation; the primary condition was, without doubt, salpingitis. The right ovary was involved in the torsion of the corresponding tube. Michel amputated the uterus above the cervix, taking away the diseased appendages without detaching them from the cornua. The patient, when convalescent, declared that the pains had completely passed away.

Right-Angled Contraction of the Tendon Achilles as a Cause of Stumbling, Etc., in Children.—Tubby (Brit. Jl. of Children's Dis.) says the clinical picture presents the following variations: (1) Pain in the calves and round the knees. The child becomes tired in walking, and stumbles and falls on attempting to run. (2) Shambling gait, short steps and bent knees, the bending being increased on taking longer steps. (3) Constant occurrence of sprained ankle. (4) Everted feet; though the arches have not fallen they are often exaggerated. (5) Turning in of the toes, the child walking on the outer side of the foot. All these clinical phases result from a varying degree of loss of the angle of dorsi-flexion of the foot, due to contraction of the calf muscles and tendo-Achillis. This produces shortening of the stride in walking, the patient being in uncertain equilibrium if he attempts to take a long step. If allowed to proceed, the condition develops into ordinary talipes, and recognition and appropriate treatment of these slighter degrees of contraction are essential. In examining the child, the movement of dorsi-flexion of the foot should be slow, gentle, and steady, and one examination is often insufficient to determine the degree of

contraction present. The condition is usually due to infantile paralysis, and the difficulty in walking and other symptoms described to the surgeon frequently begin with one of the exanthemata. Another set of causes is associated with throat lesions, and in Anglo-Indian children there is often a history of one or two attacks of "fever." The treatment presents considerable difficulty. If, with the limb fully extended, the foot is incapable of dorsi-flexion beyond a right angle, it is advisable to lengthen the tendo-Achillis. An open operation is recommended, the tendo being lengthened by the Z-shaped method. A transverse incision is made halfway through the tendon, the knife carried vertically downwards for a distance of one to one-half inch, then turned on the flat, the remaining part of the tendon cut through transversely, and the two portions slid upon one another until the desired degree of lengthening is obtained. In cases where there is only a small diminution of five degrees or so of the angle of dorsi-flexion, passive and active movements designed to stretch the contracted structures are advisable, and much assistance is afforded by a boot with a toe-uplifting spring. If these measures fail, recourse may be had to the method of operation described.

Intraperitoneal Injection of Oxygen for Tuberculous Ascites:—Schulze (Mit. a. d. Grenz. d Med. u. Chir.,) gives a comparison of the various forms of treatment for tuberculosis of the peritoneum, and the theories which account for the cures after exploratory laparotomies. He then presents the method of Moyer and Schmidt, of injecting oxygen after the aspiration of tuberculous ascites. Reasoning from the fact that a fairly large proportion of the operated cases recover, and remain free from ascites, and knowing that simple aspiration of fluid is rapidly followed by its return, they decided to combine the subsequent injection of oxygen after aspiration to imitate the entrance of air during operation. The report is based on six cases so treated over a year and a half ago. All remain alive and are able to work. Five received only one puncture and oxygen injection, one case receiving two, the latter having had a laparotomy previous to the first injection. In one case the tumor masses entirely disappeared, and in another they ceased to give trouble. In all the cases the injection was supposed to do good; in half of the cases there was a reaction immediately following, such as pain or vomiting, the fluid slightly increased, but later the ascites was entirely absorbed. Late recurrences were not met, but one case was aspirated and injected twice within a short period. No attempt is made to explain whether the effect is from the hyperemia, or by the chemical effect on the bacteria. The abdomen is tapped with a trocar and canula, about 1000 to 1500 c.c. of fluid removed, and then the same amount of oxygen is injected, under two to three atmospheres of pressure. The oxygen is made fresh from potassium chloride and potassium permanganate.

Intraparietal Hernia with Very Small Peritoneal Opening, Giving Rise to Severe Abdominal Pain.

Macewan (Lancet) reports the case of a woman of 57 years who had had for 27 years abdominal pain about midway between the navel and symphysis, about two inches to the right of the median line. A small umbilical hernia was found and later a mass the size of the closed fist with a narrow pedicle, extending toward the abdomen. On lying down, this mass disappeared with a sudden slip and a slight gurgle. The umbilical hernia was first treated and then the inner surface of the abdominal wall was inspected. At the point above named as painful, inspection revealed a small raised area with a minute central depression. So small was this depression that it was doubtful if it would admit a probe. Slight pressure with the point of the probe, however, served to gain access to what appeared to be a small sac in the abdominal wall. Dressing forceps were next tried and it was found that the minute mouth of the sac was extremely distensible, easily opening sufficiently to admit the finger, which penetrated a distance of one and a half inches when a little pressure was applied. An incision was now made round the mouth of the sac in the normal peritoneum and the sac, which then lay loosely in the abdominal wall, was dissected out. While very small when relaxed, and, as already stated, possessing a very narrow mouth, it was capable of great distention, extending easily to the size of a tangerine orange. A futher point of interest was that the omentum, instead of lying in front of the coils of bowel, had become turned up, its free border being attached to the stomach and the whole being laden with fat. An attempt was made to remedy this and a redundant portion was removed. The wounds were now sutured, particular care being taken to secure accurate apposition of the cut peritoneal surfaces, and the patient was returned to bed. She made an uninterrupted recovery and has had no further trouble, the pain having quite disappeared.

On the Use of Massage and Movement in the Treatment of Fractures.

Cathcart (Glasgow Med. Jour.) directs attention to the massage and movement method of treating feactures, and shows how almost every fracture in the body can have this method applied to it with much benefit to the patient. He arrives at the following conclusions after a study of the literature and reviewing his personal experience: Absolute immobility of the broken ends of bone is not essential to bony union. The ribs unite in spite of the movements of respiration, and wide experience has shown that the slight amount of movement, necessarily involved in the daily massage of a fractured limb, and in the daily active and passive movements for a few minutes, at least, of the adjacent joints, seems to hasten rather than hinder the formation and the solidification of the callus. Extravasated blood in joints and among muscles and synovial sheaths leads to adhesions in its neighborhood, as if it were in itself a source of irritation, apart from the irritation due to bruising and laceration of these soft parts which accompanies fracture. Massage in the form of stroking and gentle kneading and with it occasional movements, are in several ways beneficial in the treatment of fracture. These measures not only aid the actual union of the bones, but help in the absorption of effused blood and serum, restrain if not prevent the formation of adhesions among the soft parts, and maintain the nutrition of the muscles. They, therefore, simultaneously hasten union and prepare the limb to return to functional use, almost as soon as the bones are united. Splints and other retentive apparatus, including extension, are required more to prevent mal-union than non-union, and hence are called for, especially where the weight of the limb or muscular action are likely to lead to bad position during the healing. Anyone sufficiently careful and gentle in handling an injured and delicate part can do this massage and manipulation, the objects of which are in recent fracture to diminish the swelling, allay muscular spasm and soothe pain, in later stages to stimulate circulation, disperse accumulations of blood and serum and maintain nutrition of muscles, nerves and soft parts. The patient must be caused pain. The author then gives directions for the treatment of special fractures and calls attention to the fact that splints and extension must be employed meanwhile to supply the rest and fixation necessary. In certain fractures, as that of the clavicle, none of the appliances so for used prevent a certain amount of overriding; a good functional result is here obtained by the use of a simple sling with the arm firmly supported at the side. Simplification of apparatus is a desirable thing, and the writer is of the opinion that much can be accomplished in this direction.

The Intracellular Occurrence of Tubercle Bacilli in the Sputum.

Lowenstein (Deutsche Medizinische Wochenschrift,) says that among the factors that have to be considered in opsonic work is the individual susceptibility of different strains of bacilli to phagocytosis. For example, all strains of tubercle bacilli do not behave in the same way in regard to the phagocytes, some being readily engulfed by these, while others exhibit great resistance to the process. The conditions in the living body and in vitro are also very different, as is shown by a case of tuberculosis of the bladder in which the pus cells never contained tubercle bacilli, although these were present in great numbers between the leucocytes. If some of the patient's own serum and tubercle bacilli were added to the urinary sediment, active phagocytosis took place in a short time. It is therefore possible in vitro to secure phagocytosis by the aid of the same factors that in the body itself are ineffectual. The author further discusses the occurrence of phagocytosis in tuberculous sputum. He has found that the leucocytes of the sputum of tuberculous patients contain the bacilli in chronic cases of very long duration and in recent cases in which the prognosis is favorable. The phenomenon is also observed in instances in which specific treatment with tuberculin or bacterial emulsions has been carried out. Until the conditions underlying phagocytosis in the body itself have been more thoroughly investigated, the author believes that the application of the determinations of the opsonic index will not be fruitful in practice.

Acetonaemia in Children:—Langmead (Brit. Med. Journal,) groups the patients whose urine shows diacetic acid and acetone, as follows: 1. Those usually showing no symptoms of acidosis. Among these are cases of excessive fat ingestion, starvation, high fevers, gastric ulcer, malignant disease, all due to deprivation of carbohydrates. 2. Those who, while having other diseases, have also symptoms of acid poisoning, but masked by the primary condition. Such are patients with diabetes, intracranial disease, and certain poisons, such as morphine, phloridzin, and sodium salicylate. 3. Those who suffer from uncomplicated acidosis which per se may end fatally. These are the subjects of delayed anæsthetic poisoning, and recurrent, cycli-

cal, or periodic vomiting conditions which may be designated by the term "cryptogenic acidosis." The symptoms of acidosis are dulness and apathy, increasing to drowsiness and coma; the face is flushed, the eyes are bright, and there is great thirst. An odor of acetone may be detected on the breath. The urine contains acetone, diacetic acid, and sometimes beta oxybutyric acid. There is extremely rapid wasting, and hyperpyrexia may occur at the end. The writer sums up his conclusions as follows: 1. Acetone and diacetic acid are found in the urine in a number of conditions, and may be, but are not necessarily associated with symptoms of acidosis. 2. Delayed anæsthetic poisoning and cyclical vomiting are instances of acidosis of unknown origin. 3. Anæsthetic poisoning is due to the state of anæsthesia more than to the particular anæsthetic. 4. The acetone series is a product of the imperfect oxidation of fats, so that in these conditions the oxidizing powers of the tissues must be inadequate. 5. This is further shown by the condition of the liver. 6. The failure of oxidation is probably due to too great a supply of fat rather than to a deficiency in oxidizing power. 7. This is probably brought about by toxines acting like phosphorus. 8. The determining cause of acidosis is the accumulation of the precursors of acetone. 9. Anæsthetics are dangerous to patients who are the subjects of acidosis.

The Aetiological Diagnosis of Typhoid Fever:—Raubitschek (Wiener Klin. Wchschrft.) describes a special procedure for the purpose of demonstrating typhoid bacilli in the urine. The majority of the typhoid bacilli present in the urine may be obtained in this manner for culture. In those cases where the agents of typhoid fever are only scantily excreted in the urine there are better prospects for their culture than by direct admixture of typhoid urine and agar-agar. The excretion of typhoid bacilli through the urine is in no way dependent upon the stage of the disease or the severity of the case. It occurs not only during convalescence, but already about the time of the eruption of the rose spots, or even a short time previously.

The demonstration of typhoid bacilli by cultures from the blood represents an important guide to early diagnosis, which is doubly valuable because the positive demonstration of the ætiological factor absolutely proves the existence of the disease. The interference in shape of venous puncture is practically devoid of danger, not at all difficult from the technical point of view, very nearly painless and less objectionable to the majority of patients than the withdrawal of a few drops of blood from the lobe of the ear. With special reference to complications, the author observed the occurrence of a hæmatoma having about the size of a bean in two cases only.

Acute Miliary Tuberculosis Following Intubation of Larynx:—Primavera (Gior. Internez. delle Sci. Med.,) states that acute military tuberculosis may follow the traumatism due to intubation and extubation for laryngeal stenosis in cases in which there was a local tubercular focus in the larynx before the complication that caused the stenosis. He cites two cases of stenosis due to diphtheria, followed by acute military tuberculosis, in which the frequent introduction and removal of the tube necessitated by the difficulty of breathing without the tube had caused breaking down of the tissues to a marked degree. Traumatism is a cause of generalization of bacilli from a local focus. The inflammatory reaction of the traumatism sets in movement the bacilli or breaks the capsule of fibrous material which has inclosed the old focus. Acute miliary tuberculosis is not a primary process, originating from without; but an endogenous origin is necessary to prepare the enormous number of bacilli that are necessary to originate the numerous tubercles in all parts of the body. The bacillus does not multiply rapidly enough to produce them from a new focus. Hence we must always presuppose an old focus that has apparently healed. Tubercular vessels are a very frequent source of such infection. Surgical operations or procedures are a frequent starting point for such dissemination. In each of the children there was found at the autopsy a laryngeal condition that would indicate an advanced stage of tubercular degeneratisn, which must have existed for some time before the advent of the diphtheritic process that necessitated intubatiou. The course of the disease was short after the intubation han been done, the little patients dying in a few weeks of acute miliary tuberculosis.

Nasopharynx as Infection Carrier in Cerebrospinal Meningitis.

Fraser and Comrie (Scot. Med. and Surg. Jour.,) have examined the nasopharynx in thirteen cases of the disease, and in sixty-nine persons coming into immediate contact with them. While the organism was found in 33 per cent. of the fathers of cases, among other equally close contacts it was discovered only in 9 per cent. The writers failed to find the meningococcus in the nasopharynx of twenty-three contacts. They believe that hot, dusty, ill-ventilated atmospheres, which provide conditions favorable to the

growth of the meningococcus and to the occurrence of nasopharyngeal catarrh, are often associated with the dissemination of epidemic cerebrospinal meningitis. The high comparative percentage of fathers, whose nasopharynx was found to contain the meningococcus, points to the fact that they probably are the carriers of the disease to their children. The chief incidence of the disease in the Leith epidemic was among children of the lower clases, and this is in favor of a nasopharyngeal infection. Infection of the nasopharynx is undoubtedly an important factor in spreading the disease. It is advisable to isolate all contacts and to carry out a bacteriological examination of the nose and nasopharynx. If the meningococcus be present these cavities should be disinfected, and the contacts should only be allowed to leave quarantine after the nasopharynx has been reported free from the meningococcus on two consecutive occasions.

The Practical Application of the Demonstration of the Spirochaeta Pallida.

Arning and Klein, (Deutsche medizinische Wochenschrift,) in reporting the results of their work in the examination of the patients in the Hamburg St. George Hospital for veneral diseases, say that they have reached the conviction that the Spirochæta pallida is the cause of syphilis and is pathognomonic for the disease when discovered in suspected lesions. The search for this organism should be made a routine in hospital work and in time will also be necessary in the work of the practising physician. The staining method that proved most satisfactory in the hands of the authors was the Preiss modification of the Giemsa stain. One hundred and forty cases of clinical chancres were examined, 112 of these being on the male genitals. In only four instances were the spirochetes not found, the reason in two of the cases being that the ulcers had already undergone prolonged local treatment with mercury. In fourteen primary lesions of the female genitals the spirochetes were discovered in every instanc. Only ten failures are reported in 179 cases of syphilitic plaques and patches of various sorts. Seventeen cases of suspected or actual congenital syphilis were examined and in every instance in which clinical syphilis existed the spirochetes were found. In thirty-two cases in which the diagnosis was clinically uncertain the spirochetes were found seven times and the subsequent clinical course was that of syphilis. Eighteen cases gave a negative result and were treated as soft chancres, but in two of these the occurrence of secondary symptoms showed that the search for spirochetes had not been sufficiently prolonged. In the remaining seven cases treatment by mercury had already been administered and no spirochetes were found. In ninety-three cases the clinical picture was that of soft chancre and the examination was made as a species of control; in two of these the spirochete was found, but the others, in which a very careful search failed to detect the microorganism, ran the clinical course of nonsyphilitic affections.

The Operative Treatment of Inguinal Hernia in Children.

Buhlmann (Deutsch. Zeitschrift f. Chir.,) says the treatment of hernia in early infancy by means of trusses does not afford the reliable prospects of a radical cure, which is obtainable only by operative treatment. The results of surgical interference are excellent, as shown by Tavel's material, quoted by the author. In the three years from 1902-1905 117 children were operated upon, with a total of 144 operations. The cases were re-examined at the end of six months. There was only one recurrence, in the case of a premature child with a large umbilical hernia, which contained the stomach and the liver. Atrophy of the testicles did not occur in a single instance. The course was entirely free from reaction in all but five cases; a relapse failed to occur in these cases also.

From the technical point of view the facility of the operation increases with the timeliness of its performance on account of the absence of adhesions. The principal steps of the procedure are as follows: An incision is made parallel to Poupart's ligament above the neck of the hernial sac; next, incision of the tunica communis in the longitudinal direction; detachment of the constituents of the spermatic cord from the hernial sac; then the sac is pulled out and detached from the inguinal canal under preservation of the lateral vesico-umbilical ligation and oblation of the sac, the stump slipping back into the abdominal cavity; suture in layers, and gauze dressings with iodoform or iodo-gallicin.

With special reference to the ætiology of inguinal hernia, the condition depends upon the more or less atypical or incomplete obliteration of the processus vaginalis. The patency of this process creates an immediate predisposition to the development of inguinal hernia. A contributing causative factor consists in the remarkably strong abdominal pressure action as it exists in infancy. It is a result of anatomical conditions that young infants almost exclusively present oblique inguinal hernia is absent, in contradistinction to the adult cases. In his studies upon the cadaver the author observed the new fact that the inguinal canal in

the new-born follows a course almost parallel to that of the median line of the body. In the adult, with an oblique course of the canal, the abdominal pressure action results rather in a compression of the canal. Direct hernia in infants is prevented by the approximation of the vesico-umbilical and epigastric folds.

The Microbe of Whooping-Gough.

Bordet and Gengon (Ann. de l'Inst. Pasture,) says the first expectorations in pertussis, coming from deeply within the bronchial trunk, are found to contain a very small oval micro-organism in almost a pure culture. This microbe takes the stain of Kuhne's phenylmethylene-blue, but not the Gram stain. It may be grown upon a mixture of defibrinated blood with gelatine and glycerine and a decoction of potato, or upon gelatine and ascites fluid. At a later stage other germs become associated with it, so that the bacillus of pertussis is not so readily obtained. The authors conclude from their agglutination experiments that this microbe is the agent of pertussis, since only the serum of children having whooping-cough has an agglutinating effect, which is absent in other serum.

Differential Diagnosis Between Renal Disease and Perityphlitis.

Schlesinger(Deutsch. Med. Wochenschr) mentions several instructive findings that resulted from the observation of a number of cases in Israel's clinic. Red blood corpuscles may appear in the urine of perityphlitis and may be absent in nephrolithiasis when there is an incarcerated ureteral calculus. Pain radiating into buttocks, hips and legs is due to an extra-peritoneal lesion and therefore suggests a renal origin. But the appendix, too, may be extra-peritoneal and may then produce the same phenomenon. Violent pain radiating into testicles and penis speaks for disease of the urinary tract, but bladder disturbances were found sometimes to be due to perityphlitis. Finally, cases of renal colic were observed closely simulating ileus.

Pathogeny of Phlegmasia Alba Dolens.

Keim (La Presse Medicale,) believes that there are cases of phlegmasia alba dolens that are not the result of infections from without. It may follow a perfectly normal puerperal state, and is rare in serious infections as well as in abortions, which are frequently accompanied by infection. After delivery coagulation may result from an abnormal blood condition due to imperfect function of the liver. During pregnancy these functions are altered and the blood becomes more coagulable than normal. There is an excess of fibrin. Injections of plain water or sublimate render coagulation easier. The treatment of this condition should aim to stimulate contraction and increase the anticoagulating function of the liver. Intrauterine douches should not be given, and all clots and placental remains should be removed. At the end of pregnancy intestinal affections aid in producing toxemia. There are internal coagulations in the abdominal veins from pressure, which after the traumatism of labor are propagated to the veins of the leg. Intestinal toxins act upon the liver again and lessen coagulating power. Practical deductions are that intestinal conditions should be carefully watched during pregnancy, constipation and enteritis treated at once, and intestinal lavage made with alkaline solutions and peroxide of hydrogen. The venous system is at the same time treated by giving hamamelis virginica and strychnine. After delivery the uterus should be carefully emptied and contraction hastened by hot vaginal douches and ergot.

Mobile Kidney, with a Description of an Operation for Anterior Nephropexy.

Bishop (The Lancet) says that the cases in which practical men are interested fall into the category of "mobile" or "wandering" kidney, are not surrounded by peritoneum, and their excursions take place entirely behind the parietal peritoneum in the loosened subperitoneal connective tissue Regarding this variety there are only four points on which writers appear to be agreed, viz., that such a condition actually exists, that it is most frequent in women, that it is most frequently seen on the right side, and that it is very frequently associated with neurasthenia. After quite an exhaustive review of the literature, he describes his operation as follows: An obliquely transverse incision is made through the muscles of the abdominal wall outside the rectus muscle. This gives free access to the renal fossa on the right side. The liver being lifted, the stomach drawn inwards, and the hepatic flexure of the colon depressed by broad retractors or large flat sponges, the parietal peritoneum is divided transversely over the lower fourth of the kidney. The two peritoneal edges being held apart, a curved incision, concave upwards and outwards, is made in the proper capsule, and the lower segment of this loosened from the anterior renal surface down to its inner and lower extremity. This capsule remains attached to the posterior surface of the organ. Its flap is turned downwards and inwards, leaving the raw surface of the kidney exposed for a corresponding distance. Two or three sutures attach this loosened edge

of the capsule to the fascia beneath. The peritoneum is sewn up by catgut. The anterior surface of the lower leaflet of the true capsule is now in contact with the posterior abdominal wall, and the posterior surface of the peritoneum is lying upon it and upon the bared lower anterior renal tissue. A long straight needle, armed with iodized or chromicized catgut, No. 3, is pushed directly backwards immediately below the ureteral insertion until its point emerges behind; another needle carries the opposite end of the same thread, and is pushed through one centimeter below the first. When both needles are drawn through the thread is tied over the muscular layer behind the peritoneum, capsule, and posterior tissues are united on the inner side of the lower pole of the kidney. Another pair of needles is placed in a similar manner so as to carry a loop of catgut below the inner lower angle. Two or three more carry loops below the kidney. All these pass through peritoneum, capsule, subperitoneal connective tissue and muscles. When drawn tight and tied the kidney will be supported by a row of sutures which do not penetrate its substance, but which effectually fix it. The closure of the abdominal wall in tier fashion completes the operation.

Pubiotomy.

Backer (Gyn. Rund.) discusses the relations of pubiotomy and symphyseotomy and their advantages. The strongest argument against symphyseotomy has been that a wound of a joint is more difficult to heal than that of a bone; but the symphysis is not a true joint and possesses no synovial membrane. If it is more open to infection the answer is perfect asepsis. The symphyseotomy wound cannot be well protected against infection if we await a spontaneous delivery after the operation, The mortality of pubiotomy and symphyseotomy is not less than that of Cesarean section and injury of the soft parts is liable to follow either of these operations. The most frequent is injury of the corpus cavernosum, of the clitoris, or the pudendal artery, either of which will produce hemorrhage. With the subcutaneous method this is still more liable to occur. The bladder and vagina may be injured, especially when previous inflammatory processes have caused adhesions of the bladder to the symphysis. The liability to injury of the bladder when in its natural position is greater in symphyseotomy, but the pubiotomy needle may also puncture it when used subcutaneously. In third degree contractions the delivery of the child may cause tearing of the bladder through the force necessary to delivery. The dangers seem to be equal in these two operations, but by improvement of technique they may be lessened in pubiotomy. Advocates claim greater widening of the pelvic diameters in symphyseotomy. The author finds that the increased width if equal in the two operations. Severe degrees of contraction are not suitable for either of these operations, but should be left to Cesarean section. The pelvic outlet is not much increased in width on account of the pelvic diaphragm which resists the spreading of the bones. The oblique diameter is increased more than the antero-posterior diameter. The widening seems to be about the same in the two operations, and the limits are the same, only the second grade of contraction being suitable for them. The union is generally fibrous in both cases, a bony union being rare, and fibrous union allows of a little more room by stretching of the point of union during the next delivery. The author believes that these two operations stand on the same plane and are equally indicated. But the mortality has not been much reduced by the use of these operations. It is 5 to 6 per cent. for the mother. The soft-part injuries and the formation of hematomata are distinct disadvantages of them and infection may occur. Hemorrhage is generally slight, but hematomata constitute a distinct danger. Most of the soft-part injuries may be avoided by care in delivery. The author believes that only the original form of pubiotomy is justifiable, and that the subcutaneous form should be discarded. At the present day the tendency is to await a spontaneous delivery after operation, rather than to deliver by forceps or version.

Tuberculous Diseases of the Oesophagus and the Stomach:—The author contributes a compilation of all the published cases, to which is added a personal observation on a case of tuberculous ulceration in the stomach and the œsophagus, with autopsy findings. To his study of the post-mortem material of the Kronstadt Navy Hospital, including 18,593 autopsies between the years 1871-1905, he found 25 cases of probably tuberculous gastric ulcer and 5 cases of oesophageal ulceration. The origin of the disease is usually referrable to direct inoculation; more rarely the infection travels by way of the blood. The disease, which is secondary in the majority of cases, does not, as a rule, give rise to very distinct symptoms. In those cases where the affection takes the course of gastric ulcer or pyloric stenosis it can sometimes be recognized by the diminished acidity of the gastric juice. In exceptional cases and in robust patients surgical treatment may enter into consideration in the presence of

pyloric stenosis or gastric ulcer.—Russki Vratsch.

Diagnosis of Epidemic Cerebrospinal Meningitis in Infants:—Progulski says that no other infectious disease of childhood presents the same variability of symptoms as epidemic cerebrospinal meningitis, and the disease is therefore frequently misinterpreted in the rapid examinations of ambulant clinical material. In the majority of the cases the disease begins suddenly in previously healthy infants. Less commonly there has been general malaise for a short time before the onset of the disease. Vomiting, although common in older children and in adults, is very rare in infants, as is also rigidity at the nape of the neck. One of the most important signs, which is prominent in all there infants, is a rise of temperature, the curve of the fever showing a similar course as in all suppurative diseases; also great restlessness and excitement under preservation of consciousness. Convulsions are a less typical sign, and Kernig's symptom is equally rare. Certain cases are characterized by an eruption of the skin, which persists for a short time only, never extending to the mucous membranes. The presence of a similar cutaneous eruption, together with general malaise, is suggestive of cerebrospinal meningitis. According to the author a very important symptom in young infants consists in an exaggerated appetite, together with progressive emaciation. Older children, on the other hand, are affected with anorexia; often with a clean tongue and no gastric derangement. —Livowski tygodnik lekarski; Centralblt. f. inn. Med.

A Case of Xeroderma Pigmentosum Without Pigmentation:—Audry reports a case in whom since childhood the following symptoms of xeroderma pigmentosum were exhibited: The skin was dry and diffusely atrophic and erythematous, and there were achromatic spots and telangiectases. There was a lack, however, of pigmentation, with the exception of a few ephelides upon the back of the hands. The writer repeats his former conception of this malady, namely, that it is a congenital dyskeratosis, the main symptom being represented by the erythematous, pseudo-icthyotic atrophy of the skin. The other symptoms are considered of secondary importance. The writer does not recognize a xeroderma pigmentosum tardivum.—Annal. de dermatol. et. de. syph.

Further Investigation With the Microsporon.

In continuing his experiments with the microsporon Sabouraud has recently discovered three new varieties of this fungus. Hitherto, in addition to the Microsporon Audouini, microspora occurring in the horse, dog and cat had been recognized. Of the three new varieties, two are encountered rarely and are distinguished only by culture. They cannot be distinguished clinically or histologically. The third variety, which the author calls Microsporon lanosum, was found in about a third of the cases of herpes tonsurans that were examined. It produces such a typical picture that its presence can generally be recognized clinically. Cultures of this variety grow very readily and resemble in this respect the microspora of the cat and dog. As it is futher easily inoculable in animals, it seems likely that it is of animal rather than human origin. This has not as yet, however, been proven.

Upon the human scalp the microsporon lanosum produces small patches, covered with gray scales, and which show very few normal hairs. The appearance of the hairs is that seen in every variety of trichophytosis. The patches after a few days frequently assume an inflammatory aspect. There is a noticeable tendency for the patches to spread upon the surrounding healthy scalp. A herpes irislike picture can then result.—Annal. de dermatol. et de syph.

The Treatment of Typhoid Bacilli Carriers

Dehler (Munchener medizinische Wochenschrift,) says that he believes that in cases in which typhoid bacilli are habitually cast off in the feces, but are not present in the blood or urine, operative cleansing of the gall-bladder is indicated. He describes two cases in which the patients, two inmates of an institution for the insane, were apparently freed from the typhoid bacilli by drainage of the gall-bladder. In the first case before the operation 37 out of 39 examinations of the stools were positive for typhoid bacilli, whereas of 176 examinations made after the operation the organisms were found in only 3. In the second patient, who apparently had never suffered from typhoid fever, before the operation 30 out of 55 examinations of the stools were positive; after the operation 28 out of 30 examinations were negative. In both cases the administration of intestinal antiseptics had been ineffectual in removing the organisms from the feces.

The Treatment of Malignant Growths With Organic EXtracts.

Bergers and Stickers (Deutsche medinsche Wochenschrift) speakr of the results that have already been obtained in cases of experimental new growths by injecting substances extracted from normal livers. In

this way it has been possible to produce necrosis and liquefaction of carcinomas and sarcomas, and the theory has been suggested that the unrestrained growth of malignant neoplasms is due to the absence or insufficient quantity of similar ferment-like bodies. These results have not as yet been susceptible of clinical application, however, since it has so far not been found possible to produce the local effect without also giving rise to toxic symptoms. In experiments on mice it was also found impossible to cause complete disintegration of the tumor without endangering the life of the animal through the toxic action of the organ extracts. In the present communication the authors describe a similar effect which was produced on advanced experimental sarcoma of the dog. The injection of the specific liver ferments caused regressive changes in the growth leading to its complete disappearance after it had already reached a stage of development that excluded the possibility of spontaneous cure. In this instance also the authors warn against a too sanguine attitude in regard to the application of the method to similar conditions of man, though they consider that the results obtained will be found of great theoretical value.

Action of Morphine Upon the Genital Apparatus of the Woman.

Lutauda (Journal de Medicine de Paris) has found, in the course of several years of treatment of drug habitues that the effect of the morphine habit on women is to stop menstruation and to take away all sexual desire. Others give the same experiences with men. The author thinks that we may make use of these facts in the treatment of gynecological diseases in which there is metrorrhagia with benefit to the patient. Such conditions as menorrhagia without lesions, menorrhagia and metrorrhagia due to fibromata, and that due to the destruction of the tissue by cancer. In the first class of cases there are whose profuse menstruation menaces life and here morphine may save life, and yet the patient may not become a morphine habitue if the drug is withdrawn skillfully. In fibromata its use may serve to tide over a few years until the menopause changes put an end to the growth of the fibroid and atrophy takes place. In cases of uterine cancer it is the duty of the physician to make of his patient a morphine taker, since only thus can she be comfortable for the rest of her existence. The author has seen cases in which the use of morphine has not only made the patient comfortable for years, but has actually prolonged life. It retards vital exchanges, lessens secretions, and retards the evolution of the neoplasm, and life is longer.

The Thymus and Death in the Course of General Anaesthesia.

Laponte (Le Progres Medical) ranks among the conditions that render anaesthesia dangerous abnormal persistence of the thymus gland after birth. It is associated with hypertrophy of the lymphatic organs and the lymphadenoid tissues. The author has found in literature 33 examples of sudden death under general anaesthesia in such persons, and to them adds two observed by himself. The dominant symptom is the presence of a large thymus. The evolution of this gland consists of a period of growth followed by one of regression, ending normally in the second year of life, abnormally from the fifth to the twenty-fifth year. There are vestiges of the gland even in the most advanced age. Histiologic changes go on that are curious; at first they are ephithelial, later fatty changes go on. Persistent thymus is only one feature of the status lymphaticus. There is almost always enlargement of the lymphatic glands, and exuberent adenoid tissue in the pharynx, and in the Peyer's patches of the intestine. Sometimes the thyroid gland is also hyperplastic, and there is corpulence combined with the other changes. The form of anaesthetic used seems to have no effect on the occurrence of sudden deaths in such subjects. The respiration becomes slowed, and the pulse imperceptible; then the heart stops and the pupils dilate rapidly. Artificial respiration will cause a few breaths after the stoppage of the heart. The theory of the compression of the trachea and great vessels by the thymus is hardly tenable as a cause of death. No compression has been found at the autopsy in any case. Hyperthymization, that is that the thymus throws into the circulation toxic substances that create a pathological excitation of the cardiac nervous centres, which react reflexly, is also proposed. On this supposition it is advisable to lessen all nervous excitations before the operation by the use of drugs. In every case in which there are evidences of the status lymphaticus, scopolamine-morphine solution should be injected so as to produce a calm sleep, and then anaesthesia should be begun during the sleep.

The Suprarenal Glands.

Rolleston (Lancet) discusses certain problems connected with the secretion and functions of the various portions of the suprarenal glands. Three views have been put forward as to the function of the cortex: (1) That it is connected with growth, especially of the sexual organs; (2) that it is antitoxic; (3) that it plays some part in the elaboration of the internal secretions of the medulla. A priori it would seem improb-

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able that the cortex discharges all three functions, but it is suggested that each of the three zones of the cortex—zona glomerulosa, zona fasciculata, and zona reticularis—performs a different function. The correlation of the cortex with sexual growth, is the most definite thing known. As regards the medulla, complete absence of its internal secretion is met with in Addison's disease. This is proved by the inactive condition of such suprarenal glands when testen physiologically. The suprarenal medulla map also be devoid of adrelin in patients dying from chronic exhausting diseases. It is possible that intestinal toxins may also act on the cells of the adrenal medulla as to produce an internal secretion of such an abnormal character that the normal process of transformation of any excess into an inactive body cannot be carried out by the tissues. The excess of such an abnormal adrenalin might conceivably cause high arterial pressure, arterio-sclerosis, and the allied morbid changes.

The Origin of Seasickness.

Lund (The Practitioner,) concludes a study of this affection with the statement that there is some mechanism in the auditory organ, possibly the system of semi-circular glands, which is directly affected by the oscillations of a vessel at sea, and which acts as a stimulus to the vomiting center.

With regard to the nature of the movement, it may be pointed out that it is one of sudden descent, as any one may prove for for himself by trying a few experiments in a lift. I have certainly noticed a peculiar sensation in my ears, synchronous with the sensasion in the epigastrium, on the sudden downward movement of a lift, and experienced no sensattons on the upward movement. It is conceivable that these sudden and unexpected movements may take the endolymph in the semi-circular canals, so to speak, unawares, and create a condensation or rarefaction, or both alternately, in one part or another of the labyrinth, thereby altering the pressure on the endings, and thus causing a direct stsmulus to vomit.

The routine treatment adapted for combating seasickness is compatible with this theory, as it mainly consists in lowering the sensibility, or the conductivity of the afferent nerves, or in numbing the vomiting center by the action of such drugs as potassium bromide, chloral or morphine.

The Effect of Nicotine Upon the Cardio-Vascular System.

Grassman (Munch. Med. Wochen.), from the vast amount of literature upon this subject combined with his personal experience makes the deduction that the use of tobacco produces serious conditions in the cardio-vascular system. Its use during the age of development is given as one of the potent causes for arterio-sclerosis. This process takes place more in the peripheral arteries at first; later after the prolonged use the heart muscle becomes affected. This is exhibited by the increased pulse rate, the arrythmia, and the tobacco angina. The duration of the use of tobacco is more an important factor regarding the condition of the heart muscle than the subjective symptoms. Positive objective symptoms, however, as shown by Traube, can be demonstrated in the form of constant increased pulse rate, increased blood pressure, and hypertrophy of the heart. That nicotine poison has actually produced chronic myocarditis has been proven by Rosenbach, Faverger, Lewin, Kunkel. The history of the use of tobacco is present in nearly every case of organic disease of the heart muscle. The author pleads for a more serious consideration of these symptoms from the use of tobacco, and advocates an earnest discouragement by the profession for the indulgence in this pernicious habit.

New Treatment for Rabies.

Remlinger, director of the hydrophobia institute at Constantinople, has recently announced the discovery of a new treatment for for rabies (Revue scientifique). The procedure consists in a vaccination made with mixtures of anti-rabic serum and of the fixed virus, already studied by Marie. The serum is obtained by injecting ascending doses into the sheep, of fixed virus; at first into the jugular vein and next under the skin. He ascertained the perfect harmlessness of this mixture when injected under the skin of man by experiments mader upon himself. The immunization in rabbits was only temporary but in dogs it lasted for a year or more. The author has great hope that the immunity obtained in the sheep dog indicate a possible future for this new treatment.

Miscellaneous.

The Nature and Treatment of Dropsy.

Dr. Thomas Hunt Stucky, A. M., M. D., Louisville, Ky., says the term dropsy is one which is rather loosely applied to any abnormal accumulation of watery fluid in the body. In more concise technical language we use the word edema when the fluid occurs within the interstices of tissue and ascites when it is free in the abdominal cavity. For accumulations in other cavities special names are used, as hydrothorax, hydropericardium, hydrocephalus, etc.

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is a very common form of dropsy; it is usually confined to certain regions, but may become general, in which case it is referred to as anasarca. The site in which edema most frequent occurs is in the feet and ankles, next to this is the region about the lower eyelids.

In a normal state of health there constantly exudes from the blood vessels, especially the capillaries, a fluid derived from the serum of the blood. This percolates between the cells of all tissues, and is the means of carrying nourishment to all those cells which are not in direct contact with blood vessels. These interstices between the cells are drained by the vessels of the lympphatic system, which are able to carry off easily all the fluid which comes to them under ordinary circumstances.

The composition of this lymph is very nearly the same as that of the serum of the blood. It contains a larger proportion of water and only about three per cent. of proteids. As a rule it contains no fibrin, although it will coagulate upon the addition of fibrin ferment, showing the presence of some of the fibrin elements. Its specific gravity will average about 1.015.

Cohnheim taught that most important factor requisite to the production of dropsy is malnutrition of the walls of the blood vessels. It is well to keep this in mind, for although in most cases the other causative agents are much more evident yet this element of malnutrition will almost certainly be found to exist in a greater or less degree. It can readily be imagined that the single layer of delicate cells which form the wall of the capillary vessels would be very sensitive to changes in the blood which is constantly passing them. In diseases of the kidneys, the liver and other excretory organs a number of poisonous matters accumulate in the blood to an abnormal degree, and they can not fail to harm this lining membrane. Fevers of all kinds, the presence of bacteria, pus or other products of microbic invasion will produce the same effect. Of course, in these diseases we do not often have dropsy, but the endothelial membrane is in a weakened condition, and a comparatively slight determining cause will bring on this symptom.

An excess of blood in the part may produce an edema. When it is caused by overdistention of the arteries the liability to edema is not so great as when there is a venous stasis. In the former case the capillaries are constantly receiving plenty of fresh blood, while in the latter the same blood remains in the vessels and the endothelium derives but little benefit from it.

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Valvular disease of the heart is one of the main causes of a general slowing of the blood current and especially of the venous stasis. The pressure from behind, the vis a tergo, of the blood in the veins is never great under the best of circumstances, and when the power of the heart is weakened from any cause this propelling force is reduced to a very low point. In valvular disease of the heart the amount of blood passed through this organ is diminished until a compensatory hypertrophy is established. In the meantime the blood in the veins being impeded to some extent in front and not forced from behind, flows very sluggishly.

In the legs the blood has to mount some distance against the force of gravity, which greatly retards the circulation. While the patient walks about vigorously the contraction of the muscles of the legs, by pressing upon the vessels, helps to force the blood forward; but such patients can rarely walk with any great amount of vigor, the blood does not receive this extra help, and an edema of the feet and ankles is almost sure to be seen at some stage of the case. At first this is merely a puffiness observed at night after being up all day. The condition spreads from the feet up the legs, becoming greater as the case progresses. After a time the swelling is not entirely reduced even after a night's rest; the parts feel cold and pit upon pressure, the dents remaining for quite a length of time. Unless the case is treated properly this edema will finally involve a large portion of the body, it is an expression of extreme weakness of the circulation, and is rightly regarded by the laity as a very grave symptom.

Allied to this condition in certain ways is the accumulation of fluid in the abdomen. This escapes from the vessels of the mesentery and intestines; it is seen in conjunction with dropsy in other parts, and may come from the same state of cardiac weakness which causes edema of the feet. In many instances, however, it has a special cause in an obstruction to the flow of blood through the liver. As is well known, all of the blood from the stomach, small intestine and most of the colon is gathered up into the portal vein and goes through the liver. Whenever there is any obstruction in this organ the blood is dammed back into the other viscera and its fluid oozes out into the general peritoneal cavity.

A state of inflammation of the liver, bringing an abundance of leucocytes to the organ and causing a swelling of its cellular portion, produces a compression of the blood vessels, thus impeding the circulation. In chronic inflammations the overgrowth of the connective tissue has the same effect but

CONTINUED PAGE 52

TABLE OF CONTENTS FOR JANUARY, 1908.

Original Communications.

State Maintenance for Epileptics, by T. P. Satterwhite, M.D., Louisville, Ky. 1
Malignant Diseases of the Stomach. Diagnosis in the Early Stages, by Dr. M. J. Payne, Staunton, Virginia. 2
Gangrenous Kidney. Transparitoneal Nephrectomy; Recovery, by Dr. Joseph Graham, M. D., and E. A. Abernathy, M. D. Durham, N. C. 5
Strangulated Hernia in Infants, by John Egerton Cannaday, M. D., Hansford, W. Va, Surgeon-in-charge, Sheltering Arms Hospital. 6
Hemmorhagic Malarial Fever; Report of Cases, by F. A. Webb, M. D., Calvert, Alabama. 8
Some Clinical and Practical Points about the Prostatatiker and Prostatectomy, by Robt. C. Bryan, M.D., Richmond, Va. 9
Surgery and the General Practitioner, by J. W. Ellis, M.D., Lampas, Tex. 14
The Relation of the Physician to the Public, by V. Berry M. D., Wetumka, Oklamaho. 16

Editorial.

The State Hospital for Consumptives 21
A New Director for the State Laboratory of Hygiene, Raleigh 21
Thompson Hospital 21
Elections, 21
Greensboro Cottage Sanitarium, 21
Plague in San Francisco, 22
Tri-State Medical Association 22
The Medical Brief Changes Hands 22
Society Meetings 23
Nalle-Mayer 24
Dr. J. F. Beall, 24
Dr. S. M. Deal, Blacksburg, S. C. 24
Dr. Geo. F. Shrady 24
Dr. H. P. Loomis, 25
Dr. Nicholas Senn, 25

Review of Southern Medical Literature, 25-29

Book Notices.

Journal of the Elisha Mitchell Scientific Society 30
When Things Were Doing, by C. A. Steere 30
Modern Medicine, by William Osler, M. D. 30
Diseases of the Nose and Throat, by D. Braden Kyle, M. D. 80
Atlas and Text-book of Human Anatomy, by Sabotta and McMurrich 31
The Treatment of Fractures, Chas. L. Scudder, M. D., 31
The Principles and Practices of Modern Otology, by John F. Barnhill, M.D. 31
Sexual Instinct, by James Foster Scott, A.B., M.D., C. M. 31
Empire Builders, by Francis Lynde, 32
Maternity, by Henry D. Fry, M. D. 32
The Race for the Emperor's Cup, by Py Paul Eve Stevenson, 32
The Mind of the Master, or The Nervous System of Jesus, by Salvarona, 32
The Physician's Visiting List for 1908, by Blakiston Son's Co., 32
Anarchism and Socialism by Geo. Plechanoff Anderson, 32
The Republic, by N. P. H. Kerr & Co. 32
Marxian Economics, by Ernest Untermann, 32
Merck's 1907 Index, by Merck' Co., 32
Wellcome's Excerpta Therapeuta, by Burruoghs Wellcome & Co. 33
International Clinics, by W. T. Longscope, M. D. 33
Transactions of the Indiana State Medical Association, by Dr. A. W. Brayton, 33
Squibb's Materia Medica by E. R. Squibb & Son, 33

Abstracts.

Pain and Blood Pressure 19
Wine and Typhoid Fever 19
Frequency of Tuberculosis in Infancy 19
Diphtheria, Irregelarity of the Pulse in 19
Anastomosis Between the Common Bile Duct and and the Duodenum for Obstructive Jaundice, 20
The Diagnosis of Chronic Valvular Disease of the Heart, 20
Inguinal Hernia in Children 29
The Resection of Large Nerve Trunks Without Paralysis 29
Medical Egotism 33
Blood Pressure in Fevers, 33
A Case of Land Scurvy, 33
An Operation for Embolus, 33
A Case of Cerebellar Hemmorrhage, 34
Attempted Induction of Abortion by Intra-uterine Injection of Fehling's Solution, 35
Indications for Rupture of the Membranes 36
Acute Torsion of Both Fallopian Tubes, 36
Right-Angled Contraction of the Tendon Achilles as a cause of Stumbling, Etc., in Children 37
Intraperitoneal Injection of Oxygen for Tuberculous Ascites 37
Intraparietal Hernia with Very Small Peritonal Opening, Giving Rise to Severe Abdominal Pain 38
On the use of Massage and Movement in the Treatment of Fractures 38
The Intracellular Occurrence of Tubercle Bacilli in the Sputum 39
Acetonaemia in Children 39
The Aetiological Diagnosis of Typhoid Fever 40
Acute Miliary Tuberculosis Following Intubation of Larynx 40
Nasopharynx as Infection Carrier in Cerebrospinal Meningitis 41
The Practical Application of the Demonstration of the Sphirochaeta Pallida, 41
The Operative Treatment of Inguinal Hernia in Children, 42
The Microbe of Whooping Cough, 42
Differential Diagnosis Between Renal Disease and Perityphitis. 43
Pathology of Phlegmasia Alba Dolens 43
Mobile Kidney with a Description of an Operation for Anterior Nephropexy. 43
Tuberculous Diseases of the Aesophagus and Stomach 44
Diagnosis of Epidemic Cerebrospinal Meningitis in Infants, 45
A Case of Xerodrma Pigmentosum Without Pigmentation, 45
The Treatment of Typhoid Bacilli Carriers, 45
The Treatment of Malignant Growths With Organic Extracts, 45
Action of Morphine Upon the Genital Apparatus of the Woman, 46
The Thymus and Death in the Course of General Anaethesia, 46
The Suprarenal Glands 46
The Origin of Seasickness, 48
The Effect of Nicotine Upon the Cardio-Vascular System, 48
New Treatment for Rabies, 49

it is carried to a greater degree. In this disease the lumen of the blood vessels is sometimes almost obliterated, and it is in such cases that we find persistent dropsy in the abdomen.

In diseases of the kidneys a large proportion of the poisonous matters which these organs should excrete are allowed to remain in the blood. These injure the walls of the capillaries, as referred to above, and the dropsy first seen in these cases is probably purely from this cause. Later on these same poisons affect the force of the heart muscle and weaken the nervous system, so that we may readily see how a part of the general anasarca sometimes observed in such cases may be due to circulatory weakness.

The general treatment of these cases depends, of course, largely upon the cause. Where the heart alone is at fault the patient should be put to bed, or at least confined to a chair if he can not lie down with comfort, as frequently happens. Efforts must be made to increase the nutrition of the heart muscle and the efficiency of its nerve supply. To this end we must attend to his diet; such patients have a poor digestion and are often afflicted with diarrhea. The most nourishing and easily digested foods must be given, in as great an amount and at as short intervals as he can digest them. Tonics for the heart and nerves must be administered, but care and judgment must be observed in their use, for there is grave danger of stimulating the heart beyond its strength.

Digitalis and strychnine are powerful drugs, and their effects must be watched constantly. I have had better results with a preparation called anasarcin, which is a combination of several mild tonics, alteratives and diuretics. It is a much safer drug to leave with the patient, and is very reliable in its action; its diuretic effect is one of the best means of reducing the dropsy.

Cases of renal dropsy are frequently helped by the saline purgatives and by any measures which increase the amount of perspiration. The poisons which should be eliminated by the kidney can in a large measure escape through the bowel and the skin, and these means must be used to the point of endurance. As the circulation is always weak it is necessary to administer cardiac and general tonics, and for these patients the same drug, anasarcin, is probably more efficacious than any other.

For dropsy into the abdomen the diuretic action of anasarcin and its tonic effect make it the remedy on which I have depended.

The Pretty Nurse.

"Professional nurses have no business being so confoundedly good-looking," said a young man who has recently spent several weeks in a local infirmary. "The nurse who was delegated to attend to me while I was laid up was a distractingly handsome girl, with a pure Greek profile, reddish-brown hair—the kind that seems full of little golden tendrils in the sunlight—and eyes as liquid as a fawn's. The first time she put her finger on my wrist my pulse ran up to at least 175, and she took it for granted I had a high fever and dosed me accordingly. I tried repeatedly to lure her into conversation, but she wouldn't be lured. She was strictly business. When I started to pay her compliments she would ask me to put out my tongue, which was an insurmountable obstacle in conversation. I used to lie there with my tongue hanging out, trying to put my whole soul into my eyes, but it was no go. No man can look romantic with half a foot of furry red tongue protruding from his countance.

"Another way she had of gagging me was by putting the themometer in my mouth. The last week I was there I proposed to her five times, or, rather, I tried to, but she invariably choked off my declarations by thrusting a thermometer into my mouth. I got so excited one time that I came near swallowing a thermometer worth several dollars. She was a most excellent young woman and had lots of sound common sense, as was evidenced by the fact that she gave me no encouragement whatever."—The American Physician.

One of the important points in anesthesia, which is not frequently forgotten, is to determine before its induction whether the patient can breathe freely through his nostrils. Nasal obstruction will prove more or less of a barrier to efficient anesthetization, and under these circumstances it may be advisable to let the patient inhale the anesthetic by way of the mouth, this being facilitated by placing a prop between the teeth.

Before incising a pharyngeal abscess through the mouth a small, hard pillow should be placed under the patient's shoulders, so that the head will drop back sufficiently to prevent the pus from flowing downward.—International Jour. of Surg.

Owing to the great infrequency of primary tuberculosis of the bladder, it is important in every case in which this disease is suspected to look for a tuberculous focus in some other part of the urogenital tract.—International Journal of Surgery.

In every case of severe contusion of the lower abdomen it is advisable to determine the condition of the bladder by passing a catheter. If nothing can be withdrawn, or only a small amount of blood, there is reason to assume a rupture of the bladder. On the other hand, evacuation of a large amount of bloody urine would point to a rupture of the kidney.—International Jour. of Surg.

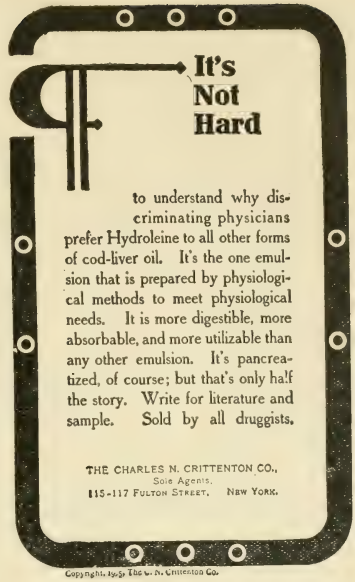
Although a rigid abdomen is generally characteristic of peritonitis, this applies only to the early period of the disease, since in the later stages or in the severe septic from there is a tendency for the abdomen to again become soft and palpable without pain.—International Jour. of Surg.

Torsion of the testicle is often difficult to diagnose from epididymitis and orchitis. The chief points in favor of the former are its suddenness of development, the early age of most patients, and the absence of any signs of gonorrheal infection of the urethra or prostate.—International Jour. of Surg.

When making digital pressure for the arrest of postpartum hemorrhage the aorta should be pressed directly against the spine with the ulnar side of the clenched hand. The pressure should be shifted over the area occupied by the aorta, so as to avoid any damage to the sympathetic nerve plexus.—International Jour. of Surg.

If possible, dranage should be avoided in operating for tuberculous disease of the bones, as the insertion of drains encourages the formation of sinuses. Scrupulous asepsis will generally render the use of drainage unnecessary.—International Jour. of Surg.

Dr. Archibald E. Baker, 126 Rutledge Avenue, Charleston, S. C., announces to the Medical Profession that after the first of January nineteen hundred and eight, he will confine his practice exclusively to General Surgery, Gynecology and consultation work.—International Jour. of Surg.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I find your H-M-C hypnotic anesthetic just what I have wanted for some time, and will keep a supply always on hand. In miscarriage where the placenta must be removed under anesthesia they are the very thing and relieve the operator of the worry of chloroform or ether. I believe them superior to the morphine and atropine hypodermic as more lasting and certain in effect. DR. A. D. BARNETT.
Guilford, Mo.

H-M-C in Texas.

I used Hyoscine Morphine and Cactin Comp, upon two tough cases, one an old man of sixty-five, with renal colic; and allow me to go on record as saying it relieved him completely within fifteen minutes. The other was a Mexican who had had singultus for three days and I had given all of the remedies I thought of, read or heard of with no results. He was growing worse. In just three minutes after this first dose he stopped hiccoughing to stay stopped. I am inclined to the belief that H-M-C Abbott will be a greater boon to humanity than chloroform or ether because of its so much wider range of usefulness.
DR. B. R. BRADLEY.
Hondo, Texas.

The Alkaloidal Treatmet of Pneumonia.

In patients with a full bounding pulse and a hot dry skin—sthenic cases—begin treatment with aconitine, veratrine and digitalin (Deferescent Comp. No. 1); or in patients having a small, quick, thready pulse and a hot dry skin—asthenic cases—give aconitine, digitalin and strychnine (Dosimetric Trinity No. 1). One granule of the combination selected should be given every 15 to 30 minutes until the pulse softens or the patient commences to sweat freely; then

one every half-hour to one hour as needed to maintain this effect. Keep the pulse at 80 or under if possible. Envelop the entire thorax (and from chin to low on the hips) in a thin, close-fitting jacket, thickly "quilted" with a raw cotton, or the common "batten," well greased. If pain calls for treatment give a few doses of bryonin or hyoscyamine and codeine singly or in combination as indicated. Always secure complete deferescence and rest, no matter how much drug is required. Some cases do better on the above formulas alternated. Threatment should always be adjusted to fit.

Clean out the primae viar with 1-6 grain doses of calomel and podophyllin halfhourly until one grain of each is taken; heaping teaspoonful of Saline Laxative in hot water and repeat every half hour till bowels move freely; then give one or two 5-grain tablets (usually one) of the Compound Sulphocarbolates—Intestinal Antiseptics W.A.—every two hours; or enough combined with occasional doses of Saline Laxative to keep the bowels sweet and clean. If stools are malodorous after they cease to be dark (almost black) in color, calcium sulphide granules, gr. 1-6 each (12 to 36 in divided doses daily) q. s, should be used as a systemic antisepsis is of the utmost importance.

If seen early and properly selected remedies are pushed rapidly, nearly every case may be aborted. If the patient is naturally weak and has a rapid, and thready pulse instead of a full, bounding pulse, always give strychnine arsenate in place of a veratrine. Codeine may be used to quiet cough if required, and emetine to facilitate expectoration. Apomorphine in small doses for expectorant and relaxant effect often works best of all. If the pneumonic condition exists in a very young or very old patient and he does not cough and clear the the bronchial tubes sufficiently, the stimulating expectorant, sanguinarine nitrate, should be used in just dose enough to produce sufficient coughing to rid the bronchial tubes of accumulated secretions. The complicating bronchitis may be as dangerous as the pneumonia itself. In such cases Calcinined (iodized calcium) is an exceedingly valuable remedy: furthermore, nothing can excel it for delayed resolution in any case. For the heart, strychnine has long been our sovereign remedy, but for heart waverings, in the earlier stages, we strongly advise the substitution of cactin, gr. 1-67 (one or more as needed), in place of strychnine. Later on, in cases foolishly allowed to run their course, the whip, strychnine, may be needed; and when rightly used will often proved a life saver.

It is of the greatest importance in all attacks of pneumonia to have a hyperleukocytosis present. For the production and maintenance of this physiologic state, Nuclein, Abbott, is the greatest known remedy. In the milder cases give 20 to 30 minims every four hours by hyperdermic injection into the deep muscular tissues. Nuclein not only produces hyperleukocytosis, but it acts as a powerful stimulant to every cell of the body.

In all cases leave the patient on strychnine or the Triple Arsenates with Nuclein, and occasional doses of cactin for the convalescent period, and continue the Saline Laxative and Intestinal Antiseptics that you have used throughout the case, q. s., as required.

The gist of the whole thing being; Forced deferescence, elimination, intestinal disinfection, local protection and strong support to nature's fighting forces.—Abbott, in Clinical Medicine.

The Origin of the Facial Nerve.

Harman (Brit. Med. Jour.) combats the theory advanced by Mendel in 1887 that the nerve supply of the facial musculature did not spring from the seventh nucleus alone, but contains a partial contribution from the oculo-motorius nucleus as well. The author's anatomical researches show that in the early verbebrates there is no facial musculature. With the development of eyelids and nictitating membrane, first observed in the sharks, the nearest available musculature is adapted for the service of these new eye appendages; this musculature is the muscles of the spiracle (the spiracle is the the first gill-cleft behind the eye, and has its representative in man in the ear tube). In those sharks which have a small development of eyelids the filching of the eyelid is of the smallest; in those sharks where the the eyelids and nictitating membrane are highly developed, nearly the whole of the spiracle muscles have gone over to the appendages, and the spiracle has become atrophied, and only remnants of the muscle proper to the lost gill can be traced. In these sharks the author traced the development of the spiracle musculature in a series of embryo the growth of the new eyelid musculature was followed. In all these fish the nerve supply could be traced from the conjoined nucleus of seventh and fifth, a nucleus known to anatomists as the facial complex. The progressive growth of the stolen spiracle muscles in the service of the face can be traced to their full development in the the facial muscles of man. From earliest to latest conditions they are arranged in two layers, superficial and deep, and there is always a most marked intercommu-

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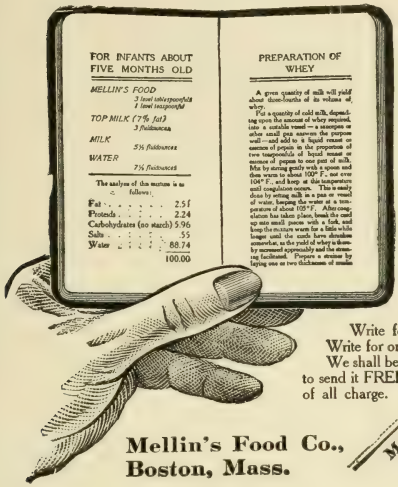
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PREPARATION OF WHEY
A given quantity of milk will yield about three-fourths of its volume of whey.
For a quantity of cold milk, depending upon the amount of whey required, take a suitable vessel — a saucepan or other small pan answers the purpose well — and add to it liquid rennet or essence of pepsin in the proportion of two teaspoonfuls of liquid rennet or essence of pepsin to each pint of milk. Mix by stirring gently with a spoon and then warm the milk to 100° F. not over 105° — and keep at this temperature until coagulation occurs. This is easily done by setting milk in a pan or vessel of water, keeping the water at a temperature of about 105° F. After coagulation has taken place, break the curd up into small pieces with a fork, and keep the mixture warm for a little while longer until the curds have shrunken somewhat, as the yield of whey is thereby increased appreciably and the straining facilitated. Prepare a strainer by laying one or two thicknesses of muslin

We have just issued a new Booklet for physicians' use entitled "Formulas for Infant Feeding."

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nication of the many muscles of the face; in fact, the facial musculature is not made up of so many distinct muscles, but of two sheets of muscle which have many slips, and to these slips we give, for convenience of distinction, names, for example, orbicularis palpebrarum, levator anguli oris, orbicularis oris, etc. The incorrectness of this separative nomenclature cannot be better shown than by citing the orbicularis oris, etc, which has been demonstrated to be nothing but the inlerlaced endings of the levator labii superiosis, depressor labii inferioris, levator anguli oris and buccinator muscles, and not a separate entity at all. Harman declares that the Mendel theory contravenes the above anatomical findings in these respects: (1) the splitting of the muscular sheets which are a morphological unity into arbitrary areas, (1) the shifting of a primitive nerve supply, and (3) the shifting of nerve cells from a cranial nucleus of one order to nuclei of quite a different order. He therefore declares that Mendel is wrong.

Plural Effusions and Its Treatments.—Barr (Brit. Med. Jour.) enters into an elaborate discussion of the physics of the pleural cavities, and then takes up the etiology of the disease. He believes that every case is due to micro-organisms or their toxins. Those cases which follow cold or trauma have only thus been been rendered vulnerable. The vast majority of cases are tuberberculous, but some are rheumatic; due variably to pneumonocci, streptocci, staphylocci the *B. coli*, *B. typhosus*, or the organism of influenza. Even cases of dry pleurisy are frequently tuberculous, though not necessarily so. In such cases there are small effusion of plastic lymph, which is gelatinous in appearance and consistence, and contains a large number of cells with a relatively small amount of fibrin. This effusion quickly organizes, and joins the two pleural surfaces together. In tuberculuos cases accompanied by effusion there is not much fibrin, and even the cellular elements may be small in amount. In pneumococcal pleurisy there is usually a large amount of fibrin whether there be much fluid or not. Those cases associated with streptococci staphylococi, and Bacillus coli, the fluid is very offensive. In cases of transudation, the liquid contains a few endothelial cells and not much fibrin, and the specific gravity is below 1,018. There are

many cases, such as those arising in chronic Bright's disease, when the effused fluid is a mixture of a transudate and exudate. The questions of symptomatology and diagnosis are passed over, and that of treatment is taken up. The author is not an advocate of too early tapping, and introduces air to take the place of a certain amount of the fluid—say one-half to three-fourths. He completes the operation by throwing in, to contract the vessels and lessen secretion, 4 c.c. of adrenalin sol. 1-1000, diluted with 8 or 10 c.c. of normal saline. Salt should be eliminated from the diet. In cases of much effused fibrin, decalcifying agents, such as lemons, the citrates, etc., may be given. Injection of trypsin may hasten the solution and absorption of this fibrinous effusion. Injections of liquid paraffine may prevent adhesions. For empyema, the usual surgical intervention under eucaine anaesthesia is commended. The variety of organisms in the pus should be ascertained, and an appropriate vaccine, according the Wright method, should be employed. Cases of pneumo-thorax are best treated by drawing off the fluid and by filling the cavity with sterile air or oxygen. Tuberculous cases are the most troublesome, and usually when the fluid becomes purulent there is a mixed infection. The paper of Barr is interesting throughout and well worthy the attention of every medical practitioner.

Subcutaneous Injections of Air as a Means of Relieving Certain Painful Manifestations.

Gubb's (British Medical Journal) experience is based on seventy-seven cases of sciatica and several cases of neuritis of the brachial plexus, The summarized histories are given of nine cases of sciatica. In nearly all of them excellent results were obtained. The pumping apparatus consists of the double-bulb arrangement familiar in the Paquelin cautery. Its capacity should be known. The air is pumped through a glass bulb containing cotton, and enters the tissues through an irido platinum needle carefully sterilized. The skin over the painful area having been sterilized, the needle is inserted through the skin, and as soon as it is evident that no vessel has been punctured, the insufflation is commenced. A rounded swelling forms around the seat of puncture, and when the air reaches a vascular or nervous sheath it rapidly spreads along it, and secondary swellings may form at a distance. These secondary ramifications are specially apt to form in the limbs, where the sheaths are more numerous. The skin at first becomes blanched, but this soon gives place to a pronounced redness, which persists for some hours. The air takes several days to undergo complete absorption, and under the influence of muscular contraction travels far and wide, so that the characteristic crepitation of "surgical emphysema" may be felt at spots distant from the seat of the original injection. No pain whatever is experienced, even when comparatively large quantities of air are injected, at most a sensation of distention, "pins and needles," or pin pricks. Cutaneous sensibility is at once diminished, the skin becoming more or less numb. The needle having been withdrawn and the puncture sealed by a drop of collodion, the next step is to massage the part. The subcutaneous air must be alternately dispersed and brought together again, especially over the painful spots. This massage is an indispensable part of the procedure, and must be conscientiously carried out, indeed, patients should be directed to repeat the process daily as long as any resonance remains. It is believed that the foregoing procedure causes elongation of the finer nerve ramifications, where they leave the subcutaneous tissues to enter the derma proper.

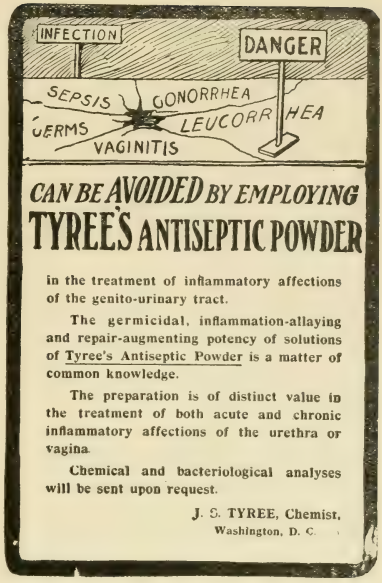
We call the attention of our readers to the advertisement of Robinson-Pettet Co., Louisville, Ky., which will be found on another page of this issue. This house was established fifty years ago, and enjoys a widespread reputation as manufacturers of high character. We do not hesitate to endorse their preparations as being all they claim for them.

Santonin.

Journet (La quinzaine therap.,) has studied the interesting question of the treatment of diabetes by means of santonin, and states that under its influence the glycosuria becomes rapidly diminished, the polyuria becomes lessened, the patient's strength is increased, and the thirst and the dryness of the mouth are ameliorated. Santonin also possesses a stimulant effect upon the nervous system as well as an antispasmodic action, and, in view of the important role played by this system in the genesis of diabetes, ought to diminish the glycogenic function of the liver. Santonin should be prescribed, just as are valerian, camphor and its bromide, and the various cyanides, in conditions in which we wish to lessen or prevent excessive muscular contraction and when we desire to restore to the nervous system its normal regulator action. Bircage considers that this drug possesses an analygesic effect in the lightning pains of tabes and that its feeble toxicity permits its continued administration.

The Excretion of Mercury by Syphilitics.

Diesselhorst (Berliner Klinische Wochenschieft) has tested numerous methods of determing the amount of mercury excreted in the urine of syphilitic patients undergoing treatment, and has found that the electrolytic method is both accurate and convenient. The urine is concentrated by heating in vacuo and the organic substances present are oxidized with hydrochloric acid and potassium chlorate. As a cathode a small tube of gold foil 2-3 mm. in diameter and 2-2.5 cm. in length is used. The anode is of platinum. The current used was kept at .1-.05 ampere and the electrolysis was generally complete at the end of one day. The cathode is sealed in a glass tube with the capillary extremity into which the mercury is driven by heat and in which it is weighed. As a result of one series of examinations the author found that mercury appeared first on the fifth day after beginning inunctions, increasing gradually while the treatment continued, and persisting, though gradually decreasing, after its termination until at the expiration of two months after the last inunction only traces were present. The feces at first contained less mercury than the urine, but after the first month after the termination of treatment the feces contained as much or even more than the urine. Traces of mercury could be discovered in the urine and especially in the feces of patients who had had their last mercurial treatment, years before, in the one case as much as ten years previously.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The Limited Value of Diphtheria Antitoxin as a Prophylactic.

Peters (British Medical Journal) refers to recent epidemics occurring in Nottingham, in one of which he considers the results of the prophylactic use of antitoxin as distinctly disappointing. In one, seven patients developed the disease in spite of the serum out of twenty-one whose throats were proven (by cultures) to be infected by the bacillus. He claims that epidemics are sometimes large, sometimes small, and are susceptible of recovery just as is a disease. As antitoxin is rapidly excreted in the urine, there is a limit to the duration of the immunity conferred. The duration of immunity was at first considered to be four weeks, later three, but the author believes that this period should be still further reduced. At the end of three weeks if the epidemic continues, further injections are necessary. Increasing the average immunity does say 500 units would probably not increase to any extent the duration of the immunity. The author's general views as to the value of the antitoxin as a prophylactic will be understood by reference to the following statements: The procedures, then, of real importance in dealing with an outbreak of diphtheria are two in number, namely (1) bacteriological examination of throats, and (2) isolation of "carriers" of infection under proper medical supervision. Where both of these measures can be systematically carried out, as is possible in most large towns, there is really no necessity for prophylactic injections of antitoxin, the latter procedure being in this case naturally confined to the few whose throats are found to contain the specific bacillus. Even in these "carriers" there is no need to go to the expense and trouble where there is proper medical supervision, that is to say, a daily inspection of throats; for, in the first place, it has been pointed out that nearly all records will show a few cases where membrane developed in spite of antitoxin, the general hospital "carriers" showing a third of such exceptions. Thus the conscientious medical man feels he is in no way relieved from the duty of careful inspection of throats. In the second place, we have such an efficient remedy in antitoxin that there is practically no danger to the patient if the remedy is administered when the disease first declares itself.

On the Use of Massage and Movement in the Treatment of Fractures.

Cathcart (Glasgow Med. Jour.) directs attention to the massage and movement method of treating feactures, and shows how almost every fracture in the body can have this method applied to it with much benefit to the patient. He arrives at the following conclusions after a study of the literature and reviewing his personal experience: Absolute immobility of the broken ends of bone is not essential to bony union. The ribs unite in spite of the movements of respiration, and wide experience has shown that the slight amount of movement, necessarily involved in the daily massage of a fractured limb, and in the daily active and passive movements for a few minutes, at least, of the adjacent joints, seems to hasten rather than hinder the formation and the solidification of the callus. Extravasated blood in joints and among muscles and synovial sheaths leads to adhesions in its neighborhood, as if it were in itself a source of irritation, apart from the irritation due to bruising and laceration of these soft parts which accompanies fracture. Massage in the form of stroking and gentle kneading and with it occasional movements, are in several ways beneficial in the treatment of fracture. These measures not only aid the actual union of the bones, but help in the absorption of effused blood and serum, restrain if not prevent the formation of adhesions among the soft parts, and maintain the nutrition of the muscles. They, therefore, simultaneously hasten union and prepare the limb to return to functional use, almost as soon as the bones are united. Splints and other retentive apparatus, including extension, are required more to prevent mal-union than non-union, and hence are called for, especially where the weight of the limb or muscular action are likely to lead to bad position during the healing. Anyone sufficiently careful and gentle in handling an injured and delicate part can do this massage and manipulation, the objects of which are in recent fracture to diminish the swelling, allay muscular spasm and soothe pain, in later stages to stimulate circulation, disperse accumulations of blood and serum and maintain nutrition of muscles, nerves and soft parts. The patient must be caused pain. The author then gives directions for the treatment of special fractures and calls attention to the fact that splints and extension must be employed meanwhile to supply the rest and fixation necessary. In certain fractures, as that of the clavicle, none of the appliances so for used prevent a certain amount of overriding; a good functional result is here obtained by the use of a simple sling with the arm firmly supported at the side. Simplification of apparatus is a desirable thing, and the writer is of the opinion that much can be accomplished in this direction.

Modifications of the Structure of the Mammary Gland Due to Suspension of Lactation.

Meynier (Riv. Crit. di Clin. Ped.) has made extensive experimental studies of the effects on the mammary glands of cats, rabbits, etc., of sudden suspension of lactation at various periods after nursing has begun. The author found that there was a gradual formation of new connective tissue in the interlobular and interstitial spaces of the gland, but that the glandular acini were never compressed by it. At first the infiltrating leucocytes were mononuclear, then polynuclear. Early in the process of change there was an accumulation of milk in the gland and a tendency to resume the function. Later the milk took on the characteristics of colostrum, and then atrophy began. The epithelial cells contained small fat globules at all stages of the change. Some practical considerations derived from these results are these: When lactation has been suspended for a short time only it is possible to recover the function, and the best method is the systematic emptying of the gland. If the gland for any reason is not entirely emptied by the infant there is a tendency to return to the state of colostrum, which will cause dyspepsia in the infant. When mixed feeding is resorted to it is best to alternate the feeding and the nursing so as not to allow the milk to turn to colostrum by too long stagnation.

Plague in San Francisco.

Plague is decreasing in San Francisco, and no additional cases have been reported since the middle of the month. There have been seventy verified cases, with forty-three deaths, thirty-two suspects are under observation, seventeen patients have been discharged as cured, and ten patients are under treatment.—Med. Record.

Pensions for Mothers.

A lecturer of the University of Chicago, in a recent public address, advocated the pensioning of mothers by the State. The pension, he said, should increase in amount up to the third child, and then decrease until the advent of the sixth, when it should cease.—Med. Rec.

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Achylia Gastrica.

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The physician who is in the habit of using the stomach tube for diagnostic purposes, frequently encounters a condition characterised by an entire absence of secretion of gastric juice, including HCl, pepsin, rennin, etc. Ewald in 1888 called attention prominently to this fact, under the name of anadenia gastrica. Einhorn in 1892 suggested the term Achylia Gastrica for the condition, by which it is now generally so known. The disease may be either primary or secondary. The acquired or secondary form is found to exist in a variety of diseases, as in atrophy of the mucous membrane of the stomach, so frequently seen as the terminal stage of chronic gastritis. It it most generally associated with carcinoma of the stomach, but does not occur in all cases. It is easy to understand why achylia should exist when the entire mucous membrane is infiltrated or replaced by the new growth. But it is not so plain why there should be a suppression of secretion during the early stage, while the general nutrition is still unimpared, and where only a small localised patch of the mucosa is involved, as when sharply limited to the pylorus, where normally no acid is secreted. Still more obscure is the remarkable fact, that an absence of gastric juice so frequently occurs in cancer of organs other than the stomach. Secondary achylia is almost constantly found in pernicious anemia. It may also be found in splenic anemia, and other marked nutritional disorders. In the great majority of cases, a progressive atrophic gastritis may be found to exist.

Atrophy of the glandular mucosa of the stomach and intestine occur in practically all patients suffering from pernicious anemia. The relation of the gastric atrophy to pernicious has been the source of much speculation and debate. At first it was held that the atrophy was responsible for the blood condition. But gastric atrophy does not always lead to pernicious anemia. On the other hand, pernicious anemia is encountered without any change in the gastric mucosa. When in fact, the latter, as a rule, ends fatally; the former need not necessarially endanger the life of the patient. To-day it is generally believed that both conditions are to some common toxic cause, instead of standing in the relation of cause and effect.

Symptomatic or primary achylia is not so serious a disease as the secondary form. It is characterised by the absence of anatomic lesions to explain the loss of function. Possibly an individual peculiarity, or an inherited functional debility. As many of these patients are constitutionally predisposed to neurasthenia. Some clinicians deny that a true achylia ever exists as a purely functional disturbance, notwithstanding the fact, that there is no organ in the body so much under the control of the central nervous system as the stomach. That subacidity or deficiency of gastric secretion is a disease, there can be no doubt. It is universally admitted that a deficient, as well as an excessive secretion of gastric juice, is a most common functional disturbance of neurotic origin. Accordingly then, I would insist that we may frequently find inhibitory influences of secretion, like subacidity, advanced to complete suppression or primary achylia, of neurotic origin. Which condition is frequently not recognized in neurotics. The slightly disturbed general condition, dispite the apparent severity of the malady, together with the fact that the secretion of gastric juice sometimes returns after a prolonged absence, also argues in favor of a neurotic or primary form. Various cases have been authentically reported in which the HCl. secretion was restored after an absence of from on to five years. Recently I was much gratified to fine free HCl. in the stomach contents of a neurotic patient in whom, previously repeated examinations during a period of most a year had failed to reveal any.

At first thought the failure of the stomach to secrete gastric juice would lead to the inference that the digestive functions would greatly suffer. Such however, is not always the case. Einhorn reports one case that he had observed for four years, whose general condition, if anything, improved. Ewald treated a patient in which the secretion was absent for two and-a-half years, yet gaining forty-two pounds. I have observed a number of cases for one and two years, which have more than held their own, one having gained thirty pounds. However, Lubarsch has correctly said, that those who have lost gastric digestion have one weapon less in the struggle for existence. And clinical experience teaches, that persons thus affected are more sensitive in general, and much more liable to gastric diseases. The secretion of HCl, being the normal disinfectant, largely protects the mucosa from infection. When achylia pa-

tients are attacked by intestinal diseases and this supplementary digestion is interfered with, the prognosis becomes serious. It has been proven too, that the Jejunum is normally sterile, while in cases of achylia it swarms with bacteria.

The symptions of achylia are not characteristic. When due to organic disease, the general symptoms of such disease will be usually present.

In the achylia due to organic disease of the stomach, as in cancer, the digestive disturbance is that of the primary disease.

When associated with conditions of malnutrition, like pernicious anemia, the symptoms due to the underlying cause usually overshadow those referable to the absence of the gastric secretion.

Occasionally achylia gastrica exists in the neurotic without symptons, particularly when the motor function is well preserved, and the compensatory intestinal functions remain intact: but sooner or later disturbances arise. Achylia patients of neurotic origin frequently complain of lessened appetite, a sense of fullness or oppression after eating, inability to take large meals, and in many instances, of diarrhea. There may be headache, disturbed sleep, a feeling of fatigue, or lack of ambition. A variety of nervous symptoms are frequently associated with the above. Nausea and vomiting are unusual, but vomiting may occur in cases with motor deficiency. But as a rule hypermotility exists, and the stomach empties itself much quicker than normally.

In fully half of the cases intestinal symptoms sooner or later, make their appearance. Diarrhea is the most frequent bowel disturbance. Constipation may exist in some cases or alternate with diarrhoeal attacks. Many patients will give a history of diarrhea occurring at irregular periods, even for years. The diarrhea is characterised by the fact that it occurs without straining and usually without pain, but there may be colicky pains, varying in severity with the size and character of the meal. Occasionally the bowels move several times in rapid succession early in the morning. The stools are frequently large, and contain visible particles of undigested food. A desire to evacuate the bowels soon after a hearty meal is of frequent occurrence. The reasons for the diarrhea are apparent.

The fact has been established that the closure and opening of the pylorus is regulated through the nervous mechanism of the duodenum and stomach. The closure of the pylorus is due to a stimulating action of the hydrochloric acid on its mucosa, and it only opens when the alkaline intestinal secretion neutralises the acidity of the chyme in the upper duodenum. The escape of acid chyme into the duodenum again causes a reflex, which closes the pylorus. The disturbed mechanism of the pylorus or hypermotility in achylia, is undoubtedly due to the absence of the acid gastric juice. Evidences of this fact is characteristic of achylia, as it is necessary, as a rule, to aspirate an ordinary test meal, within half the usual time, to obtain sufficient contents for examination.

Pawlow has further proven that the acid gastric juice in the stomach and duodenum not only regulates the mechanism of the pylorus, but that its presence in the intestinal tract, acts as a normal, the most powerful stimulant, on pancreatic and intestinal secretions, thus aiding intestinal digestion. The absence of gastric juice therefore means, a poor pancreatic secretion and imperfect intestinal digestion, and it also means, that the pylorus is kept constantly open through which too large amounts of coarse and unprepared food may so rapidly pass into the intestines, as to seriously impair its mechanical and chemical functions, by overtaxing an already embarrassed or inadequate intestinal digestion. Hence the diarrhea which occurs so characteristically in this class of patients. The importance of this form of dyspeptic diarrhea cannot be overstated.

Cases of achylia may be devided into four classes, symptomatically.

First, those without any gastric or intestinal symptoms. Cases belonging to this group are exceedingly rare. I have one case under observation since April 1906. Second, those suffering from stomach symptoms without any bowel disturbance. Third, those presenting intestinal symptoms only, while class four, includes those suffering from both stomach and intestinal symptoms. Excepting the first group, the following cases are illustrative of such types.

Mrs. B. aged 35, had suffered from much gastric discomfort for three or four years: the distress often grew to a severe dull pain, lasting for several hours. Appetite fairly good, but refrains from eating to avoid discomfort. Frequent sense of oppression with eructations of gas, and sometimes of food. No nausea but occasional vomiting. Slightly constipated. Emaciated, weak and loss of energy. Sleep disturbed, and very nervous. Frequent examinations of the stomach contents after usual test breakfast, reveal total absence of hydrochloric acid, pepsin and rennin.

Mrs. O. aged 42. History negative. Mild attack of acute gastritis, lasting about one week, five years ago. Heart and lungs intact. Right kidney palpable. For the

past three years has suffered from frequent attacks of diarrhea, lasting from one to six or eight weeks, with but little relief from the usual diarrhea remedies. Sometimes acting from five to ten or twelve times daily, and often moving several times in rapid succession early in the morning. No straining and seldom any pains. Appetite usually good, but anything approaching a hearty meal, quickly provokes bowel movements as a rule. No nausea, vomiting or gastric distress. Headaches severe, though rare. Very nervous for six or eight years. Sleep undisturbed as a rule. Marked emaciation and debility during last year or so. Stomach found empty at usual time for asperating test meal, but obtained sufficient contents for examinations, by aspirating earlier, and repeated analyses show an entire absence of HCl, and ferments. While not conclusive, the only evidence present, shows the condition to be due to chronic atrophic gastritis. By judicious treatment, the patient has apparently enjoyed normal health for most a year.

Mrs. Mc, aged 34, referred to me by Dr. Krauss, two years ago. History negative, except that frequent bowel movements had been induced by nervous shocks, at various times during her life. Always enjoyed best of health until twelve years ago, since when has suffered with various digestive disturbances. As eructations of gas, spitting up food, fullness or distress after meals, vomiting without nausea, and frequent attacks of diarrhea, lasting often for several weeks. Usually induced by a hearty meal, or various articles of food, and frequently by fright or nervous excitement, also states that because of a constant fear, she invariably has a bowel movement when preparing to go anywhere, as for a drive, or to theatre. Fainting often accompanies the diarrhea, and usually occurs from an active purgative. Usual neurasthenic symptoms absent, except digestive disturbances of stomach varied, characteristically of nervous dyspepsia. Headaches rare. Sleep undisturbed. Appetite irregular, and often absent. Despite numerous attendance and various treatments for twelve years, her health gradually grew worse. Losing thirty pounds in flesh, becoming greatly emaciated and debilitated. Many repeated examinations of the stomach contents always revealed a total absence of HCl., pepsin and rennin. No evidence of any importance could be obtained, to distinguish this case from the primary form, yet the general neurotic condition was not characteristic. However, her normal weight, and general health have been fully restored, and apparently enjoying the best of health for quite a year.

A positive diagnosis of achylia gastrica cannot be made from the symptoms alone. It is only, and readily established by a careful examination of the stomach contents. Cases in which the HCl. secretion is entirely absent, but in which every minute traces of pepsin or rennin is retained are not achylia in the strictest sense of the word, but are best classified as such by many clinicians. When achylia is found to exist, it is of first importance to ascertain the underlying cause. It often requires much care to distinguish the primary from the secondary form. When due to a neurotic condition, the evidences of organic disease are absent, and the recognized neurotic condition would establish the cause.

It is not my intention to go into the details of treatment, but simply to emphasize a few of the most important points. Of first importance is the diet. It is of utmost importance that the food be broken into very minute particles, or can be easily divided by chewing. Vegetable food, as a rule, is very well born. Thick vegetable purees are most suitable. All food must be thoroughly cooked, especially meats, so that the fibers easily seperate. Meats are to be allowed only in small quantities, as they are in no way changed in the stomach, and reach the intestines in the shape they are swallowed. Connective tissue and tough fibrous meats must be avoided; likewise coarse fibrous vegetables. Careful division of food by thorough mastication is an essential of treatment. If the teeth are bad as they frequently are with digestive disturbances, the dentist's aid must be sought.

Of drugs, hydrochloric acid, caroid, pepsin, and pancreatine, especially the former, are of value. While it is not possible to give sufficient HCl. to equal the amount normally secreted, yet we may often give enough to greatly control the mechanism of the pylorus, as good results are frequently had from smaller quantities. It is particularly valuable in cases complicated with diarrhea. Owing to the fact that it is the normal or physiological stimulant to pancreatic secretion. In some cases it also acts favorably on the nervous symptoms. I frequently administer from 30 to 70 drops of dilute HCl. after meals. Tinct of nuxvomica in large doses before meals may prove beneficial in some cases. The presence of undigested food in the colon, often results in considerable intestinal irritation, which may be overcome by colonic flushing. Gastric lavage is only indicated when much mucus is secreted.

Nephritis.

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This is a disease that has been discussed as much perhaps as any other. Quite a great deal has been said regarding management and treatment, yet when we look over the field we find them going on just the same as ever. I will not divide and classify them for the management and treatment is usually about the same.

The onset in the different varieties is nearly always sudden, but may vary some with the exciting cause.

We usually have nausea and vomiting, some chillness, pain in the back, pallor, edema of the feet and ankles, eyelids and face puffed, often some fever, but rarely high and does not run a regular course as a rule.

Where there is uremia, especially in children we may have convulsions. Often we don't find many of the local symptoms and without a close examination they may pass us for a time unobserved. You may examine the urine in any of the acure infections diseases today and find nothing, while tomorrow you may find large quantities of albumen. The eyes are often affected and some of them have a heart lesion. The pulse at first is almost always hard and tense and as a rule slow--later it will lose some of its hardness and usually gets faster. If there is general ascites especially in very old patients we sometimes get a very rapid pulse and one that is almost thready, which seems to point to an early death, but in this we will occasionally get a genuine disappointment for they will sometimes react and live for quite a while after with all the symptoms markedly improved.

Uremic convulsions are seen frequently in adults in the more severe types, not as often however as in children, these are sometimes followed by very severe hemorrhage.

Very mild cases may last from two to four weeks and apparrently recover, but when exposed they are very liable to recur from time to time and sometimes they have the fatal attack and develop convulsions, coma and finally death closes the scene, others may recur a number of times and get through each attack and live for several years.

Nephritis in pregnancy differs from the other somewhat, it comes on gradually and the albumen increases from month to month until the eighth or ninth, and up to the time of delivery, eclampsia is liable to occur, but after delivery they usually make a rapid recovery, apparently without any kidney changes.

It occurs at all ages and in both sexes, but more often after middle life and males are attacked oftener than females. This can be accounted for easily as men are exposed more than women, and occupation has quite a good deal to do with it. Perhaps exposure to cold and wet—men who work in wet places and those who are constantly in water are more susceptible to it as that is a very common cause.

Long continued use of alcohol predisposes to it, and is a very common cause.

The exciting causes may be those acting on the skin, such as cold, dampness, very extensive burns and chronic skin diseases.

Lead workers are subject to it and are often attacked. Then we have auto-intoxication from the inflections diseases—in my opinion scarlet fever is responsible for more of them than all the others put together of which might be mentioned typhus, typhoid, relapsing fever, small pox, cholera, diphtheria, yellow fever, grip, measles, chicken pox, erysipelas, acute articular rheumatism, pneumonia, cerebro-spinal meningitis and tuberculosis.

In all these diseases we should be on the lookout and examine the urine frequently or we might allow it to exist too long before we discover it.

I will not mention the pathology for the text books are well filled on that and are all about together.

The diagnosis should be easy when we have any of the symptoms, and if a careful chemical and microscopic examination is made.

In all cases where there is pallor of the skin or puffiness of the eyelids, nephritis should be suspected and urinalysis made without delay if there is no other symptom present.

In the very marked cases especially those following scarlet fever, when the patient developes headache, restlessness, muscular twitching, nausea and vomiting, a tense pulse, moderate fever, dropsy or anaemia you can almost make a positive diagnosis without going futher.

Slight albuminuria in pregnancy without casts is not a true nephritis, still it is advisable to watch them closely and treat them as if they were true. In all cases the history plays a very important part in making a diagnosis.

It is never safe to make a favorable prognosis, accept in the mild ones which are predisposed by exposure to cold, etc. Some of them will apparently get entirely well. There are probably fewer of them gets entirely well, following scarlet fever than anything else.

While a great many of them will get well that are predisposed by the other diseases

in which they develop.

When we find a general edema, dropsical effusion into the serous sacs, uremia if accompanied with much cerebral manifestations, such as convulsions or coma and inflammation of any of the internal organs as pneumonia, pleurisy, pericarditis, meningitis, peritonitis, etc., the prognosis is certainly very grave.

Suppression of the urine for any time say thirty to forty eight hours I have noticed is a fatal symptom.

Recovery is occasionally noted however where there is a large amount of dropsy provided there is no uremia present. So much for prognosis.

The treatment in all cases of long standing is very unsatisfactory as a rule. I always try to relieve the congestion and inflammation as well as the edema first and stimulate the different organs to their proper functions, for it must be born in mind that the bowels, kidneys and skin should be looked after closely and all kept thoroughly open, absolute rest in a warm bed in all acute cases either mild or severe is imperative. Warm woolen underwear and kept between woolen blankets is very important. The diet should be bland in all cases, at first milk or (preferably with me) buttermilk if it is pure and fresh is the best diet if the patient bears it well. I invariably insist on their drinking freely of water or lemonade, or some of the mineral waters if taken in large quantities is beneficial.

Later on I allow meat broths with rice, well cooked vegetable soups, oat meal, grits, rice, stale bread, toast, macaroni, mashed potatoes, some stewed fruit, and sparingly of boiled or broiled fish—a little chicken etc., and have never had cause to regret it.

I consider absolute rest worth more to them than anything else.

I have never practiced blood letting in any form, but it is highly recommended by some and I believe there are cases where it is of inestimable value especially in those who suffer with much pain. Profuse perspiration benefits a large number of cases by diminishing the edema, but has a tendency to weaken the patient.

As the medicines we have nothing that will cure a true nephritis.

The changes that has taken place in the kidney structure which results from several forms of nephritis cannot be replaced with healthy tissue and the only thing that we can even hope to do is to arrest, as it were, this destruction and build up the general system and if possible avoid any cause which might result in a recurrence. Quite a good deal has been given from time to time in the text books and medical journals on the medicinal treatment and we are compelled to give them treatment of some kind. To my mind the treatment can be summed up as follows: tonics, diuretics, diaphoretics and cathartics, these can often be given in combination or separately as one may prefer. I have had the best results from digitalis, either the fresh infusion (which perhaps is the best form to use) or a combination of ext digitalis, ext. squillae and Hyd, Cum Cretae. Some form of iron, I preper fresh Bashams mixt to any other I believe. Pilocarpine, elaterium, saline cathartics, sod, or mag, sulph, etc.

The *old old* burnt sulph. of iron and wine has benefitted a great many—this if prepared by burning the copperas and powdering it finely and put a level tablespoonful in a qt. white grape wine and give tablespoonful tid, for two days leave off the third day and give small doses mag. sulph. enough to act freely—then alternate as before two days wine and one day salts, calomel is of great value-given occasionally. Strychnia or nux is indicated in almost every case, this I usually order three or four times a day, I will say that every case is an individual one and must be treated as such.

Convulsions are best controlled by inhalations of chloroform or chlor. Hyd. in mild ones sod. or pot. brom. may control. Muscular twrtching by chlor. Hyd. Nitro, Glyc. and if too severe morphia. Regular habits and diet with good warm clothing probably does more for them than most anything else.

Excesses of Modern Times and Their Relation to Disease.

By Marion McH. Hull, M. D., Atlanta, Ga.

One of the most prevalent causes of impaired health in this latter day is the indulgence in one or more excesses. We frequently have various forms of disease resulting from this cause whose symptoms are so complex that to describe them in detail would almost exhaust the list of known symptoms. For instance, there occurs to my mind as being very prevalent conditions nephritis, paresis, and gouty or rheumatoid conditions. It is not our purpose now to present an exhaustive study of how these originated, but to suggest in one or more instances the underlying causes and their development, hoping that it will held us to avoid such conditions in the future, by removing the possible cause now.

Underlying all diseases are four essential causes, as follows: Inherited diatheses, nutritive disorders, nerve reaction, and infections. Rarely does one of these occur alone, but more often a combination of two or more becomes operative, and disease is the result. For example, take a child born

of tuberculous parents; it is entirely possible for that child to develop into the most vigorous manhood and never have a sign of tuberculosis, even though it has an inherited diathesis. Suppose, however, that about the age of puberty when the whole nervous system is under great strain to control the functions properly, when the whole nature is undergoing a revolution, the child should eat some food which is difficult of digestion, a nutritive disorder would ensue and the resistance of the child be lowered. Now supposed this child at that time is in contact with tubercular bacilli exhaled from the lungs of a tuberculous parent. During all these years he has been inhaling this infected atmosphere, but has not developed the disease; now, because of the nerve reaction above spoken of, the disordered nutrition, with consequent lowered resistance, the bacilli gain foot-hold in a favorable soil furnished by the inherited diathesis, and the disease results. This we see that all four of these essential causes frequently enter into the etiology of a particular disease.

Of these four causes, however, what most concerns us in our present study is the influence exerted by nutritive disorders and nerve reactions. I propose to limit our discussion to two particular diseases which are very prevalent, and of which, I feel convinced, excesses are very prevalent causes; I refer particularly to arterio-sclerosis, with its multiform manifestations, and gouty affections. Take for instance, arterio-sclerosis; it consists essentially of a degenerative condition of the arteries of the body, the elastic fibres at first undergoing a fatty degeneration, weakening the walls and subsequently a sclerotic or hardened condition taking its place, the normal resilient tissues being replaced by non-elastic tissues. Now various symptoms may result from this, depending upon the degree of sclerosis and the location of it. Sould the arteries of the kidneys be affected, the symptoms of nephritis would result. An improper elimination of the products of metabolism which should be excreted by the kidneys would bring on a train of symptoms, which might produce subsequent heart or mental disorders. Should the arteries of the brain be affected, apoplexy would result, with immediate death, or hemiplegia with local softening of the brain; or paresis, might result with all its attendant train of symptoms. If the arteries of the heart should become affected, severe attacks of angina pectoris might follow. So you see that underlying a great many diseases is this condition of arterio-sclerosis.

Most authors in writing on this subject, assign as the principal cause alcoholism or syphilis. Of course, these diseases may, and undoubtedly do, produce arterio-sclerosis; but it has been my experience to treat a great many cases in which neither of these causes could be assigned; in fact, 90 per cent. could not be traced to either of them. In trying to account for the conditions, I have come to the conclusion that excesses of eating and of working, have been more responsible for them than the worship of Bacchus and Venus. Take for instance, the matter of over-eating; we all over-eat; it requires an amount of food which will furnish three thousand calories to supply the demands of the body for twenty-four hours, and this should be in the proportion of about 100 grms. of proteid, 600 grms, of carbo-hydrates, and 60 grms, of fats. This would be furnished by about four ounces of meat, or three glasses of milk and two eggs; about six to eight thin slices of bread, an ordinary serving of potatoes and rice, a dish of cereal morning and evening; an ordinary portion of butter at each meal; and from six to eight glasses of fluid in the 24 hours. A cursory glance at this will show in a moment that we ordinarily eat too large a proportion of meat, drink too little fluid, and eat too little fruit; and on the whole eat a great deal more than is required. The effect of eating too much would be to require the system to do more work and the eliminative organs to overtax themselves in their attempt to get rid of the products of metabolism, which should be excrited. Where exercise is deficient the organs are not able to eliminate these products, and a general accumulation takes place. These poisonous products circulating in the blood have the same affect on the cells of the body as the poisons of alcohol or of syphilis. The cells forming the arterial walls are fed by blood ladened with poisonous products; degeneration takes place, followed by sclerosis. In this way, excess in eating may cause arterio-sclerosis, which may manifest itself in nephritis, apoplexy, or paresis. This is not mere theory, I recall now, a case of a gentleman who was most temperate in every respect except in the matter of eating; he was an enormous eater, and died of apoplexy after a few hours illness. There was no other way to account for the sclerosis in this case, except as above. I have also in mind a number of cases of nephritis which cannot be traced to any other origin. It is a matter of common knowledge that excesses in eating cause gouty conditions; so frequently is gout associated with the rich and overfed, that we have commonly supposed that it could not occur in the poor and underfed; which however is an error. In these latter, however, a different series

of phenomena account for the error of metabolism.

Another one of the excesses which is extremely common and which is a very prevalent source of disease, is mental excess. By this I do not mean an excess of mental work only, but worry associated with work. Work wearies, but worry wears out. The fierce competition of modern times and the over-weaning desire to augment wealth has developed a condition of high tension, that eventually results in disease of this character. Let us see how this comes about; a man now-a-days gets up, dresses hurriedly, eats his breakfast in haste, not chewing his food properly and frequently at the same time planning his day's work, withdrawing the blood to the brain from the digestive organs where it is needed for proper functionating; he hurries forth immediately after eating, and plunges head-long into a rush of work. At lunch, tired and with deficient nerve power, he hurries home, and through another meal in the same fashion, and back to his desk. Then when evening comes he is very much exhausted, and not able to properly digest the food which he ingests; and going to bed with his business on his mind, is fortunate if he is able to rest quietly. The next day the same round is repeated. If he is of that happy disposition that enables him to accomplish his work without worry, he is able to stand this exhaustive demand for quite awhile; but there are very few men who have that gift, and the little worries wear out the already overtaxed nervous system. Then the element of nerve reaction comes into play, and with insufficient nerve power, nutritive disturbances result, with increased formation of the product of metabolism, and decreased elimination, with consequent defective nourishment of the cells, with degenerative conditions, and sclerosis. This is not purely theoretical either; for I have in mind at the present time several cases of this condition.

We have advanced thus far, we have shown that the excesses in eating and in mental work with worry, are capable of producing disease, and we have shown how and why they do. It is not necessary to demonstrate that the more common and vulgar forms of excess would develop disease conditions; so that we are prepared to take the next step—how it may be prevented. I would suggest, first, that we can be more frugal in our meals than we have been in the past. I was recently at an institution where I had the pleasure of being thrown with a company of as fine a lot of men physically and otherwise, it has been my pleasure to see in many a day. Their breakfast consisted of a cup of coffee and of a bowl of oat meal, bread and butter, and boiled mutton; their dinner of chicken, baked potatoes, bread and gravy, and stewed fruit; and their supper of crackers and milk. Comparing this meal with what we ordinarily indulge in, and comparing the vigorous physique of these young men with that of the pampered rich, we can but feel that the advantage is in favor of frugality; certainly from an economical standpoint it would be so. Another thing we would learn would be that less worry and work would accomplish the same thing, if we combined with it a third suggestion, that I should like to make, that there should be more time given to outdoor exercise and recreation. I believe a revolution would be worked in the health of our community, their lives would be prolonged and life made more joyous if a specified time would be given to recreation and rest. The outdoor exercise would stimulate the excretory organs and improve the metabolism so that the various functions of the body would not be taxed beyond their powers. The nervous system would be better, and improved health would result. I furthermore believe, that with the general health improved, a larger amount of business could be accomplished in a shorter number of hours; and instead of financial loss resulting from the time given to recreation, financial gain would be the result. This lesson is particularly necessary for us in the South, at this time, with its marvellous material development. We have attempted to keep up with its progress, but have not yet learned the secret of working intensively for a short time and stopping. To illustrate; in Atlanta, the average business man is in his office at seven-thirty and works until six-thirty or seven in the evening at least; crowding in every hour with its full quota of work; in the Northern cities, scarcely any one is in his office until nine o'clock and by four or five the offices are vacated. He works as intensively while he is at the office as does the alert Atlanta man, but he does not work as long; he has learned better how to take care of himself. I think enough has been said now to present my case; my plea is for a readjustment of our life and recognition of what the body requires, what its capabilities and possibilities are, and that we give the individual self a square deal, not expecting more work than God required of it to perform. I believe that the present rate of living is developing an increased number of cases of nephritis, arterio-sclerosis, and rheumatoid conditions; it is time that we called a halt.

Adenoids: What? Where? When? And How?*

Dr Albert J. Caldwell, Amarillo, Texas.

In presenting this papar I do not desire to be considered sensational: neither do I wish to establish a dangerous precedent in the writing or in the presensation of papers; before this body, merely hoping to present this question in a manner calculated to make the Profession "sit up and take notice" of a prevalent condition in childhood that has produced a greater number of Phenomena than probably any other thereto pertaining.

The subject has been "threshed" thoroughly. It has been presented in nearly all of its phases, forms and conditions' so to speak, not only by the wise men of the East who have smelled of the Moschus Moschiferous, who in their wisdom have set heavily on the subject, but by every Tyro, in the ranks, who has been at some time or other, seized with a burning desire to enlighten the world-Medical along these lines.

In discussing this subject, at this time, I would be recreant to the title selected should I fail to attempt to answer the interrogatories which form a part thereof.

The first two, i. e. What? And Where? are best and can be more clearly answered and defined at one and the same time.

The tissue termed Adenoid, or Adenoids, is a soft lymphoid mass lying in the vault and along the posterior wall of the naso-pharynx, and somewhat, though, to a lesser extent, in the Fossae of Rosenmuller, posterior to the Eustachian orifices. It is an overgrowth of normal glandular tissue designed to moisten this regiou, as well as assisting to moisten the inspired air.

Here let me assert a universal law pertaining to cause and effect relative to the nose and throat: Nature intended that the normal nose and throat, with its cavities and its glands, should furnish approximately a pint of secretion during the twenty-four hours, for the purpose of moistening, warming and filtering the inspired air, thereby placing it in a proper and suitable condition for the receptivity of the lungs. Consequently a blocking of the naso-pharynx, not only lessens the amount of normal secretion, but changes the current of air from the nose to the mouth, thereby lessening, or preventing, the process designed by nature in preparing the air for the lungs, as referred to above.

This tissue, or Adenoids, becomes Pathological on account of its size and the resulting interference with nasal respiration, facial development and a proper aeration of the middle ear, through its proximity to the opening of the Eustachian tubes, it is prone to acute and chronic inflammation, and liable to tubercular infection.

This condition is peculiar to early childhood life, although present in a large number of cases of riper years.

In a collection of four thousand (4,000) cases reported from a London Hospital, three thousand (3,000) were between the ages of three and fifteen years: two thousand (2,000) were between the ages of three and ten years, while three thousand five hundred (3,500) were between the ages of three and twenty years.

This record, together with the fact that there is evidence of a gradual increase in number up to puberty, is strongly presumptive evidence that the pharyngeal tonsil undergoes a natural growth during childhood and that it becomes liable to hypertrophic changes as puberty approaches.

I have examined infants under twelve months of age in whom the pharyngeal tonsil was scarcely palpable, but in the course of three years it had become so prominent as to demand operative interference. This fact warns us that although an infant may present but a mere trace of this tissue, our prognosis must be guarded as to later trouble, and any operation then undertaken must be especially thorough.

It may happen that even after the most careful and thorough removal during infancy any Lymphoid tissue left in the Muous Membrane may undergo Hyperplastic changes, and require attention later on. Especially when the naso-pharynx and Choanae are so diminutive that even a small mass of Adenoids may be sufficient to block the breathway.

While bearing in mind that these figures only represent the ages at which the patients came under treatment, they may be taken as fairly indicative of the age periods when the Adenoids are largest and most troublesome. Their accentuation at puberty may be due in no small measure to the very frequent enlargement of the turbinals; especially the inferior, which consisting largely of a species of erectile tissues, sympathetically share the special functional activity of that period. This, in turn, mechanically facilitates the hypertrophic changes in the Adenoids themselves, and is partly responsible for their recognition.

The youngest in this list was five months old; while the oldest was forty-four years. Yet this does not represent extremes since Astier reports an infant of six weeks, and Solis Cohen a patient of seventy years.

The figures, however, confirm what

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many writers have already asserted : That Adenoids are most frequently met with between the ages of six and fifteen. For after puberty the nasal and pharyngeal cavities become relatively larger by sharing the facial development, the symptoms of respitory obstruction are consequentls less likely to be found. But in spite of the natural tendency of Adenoids to disappear and the natural enlargement of the surrounding cavities, a very large number of patients who come for treatment are between the ages of twenty and thirty ; a striking contradiction to the belief, if Adenoids cause no trouble before puberty, they are not likely to do so afterwards.

It is by no means a rare experience to find large Adenoids in adults in whom the naso-pharynx is exceptionally capacious ; but are the subject of recent middle ear suppuration or other troubles.

Age, therefore, although it cannot be said to have a direct, or specific, casual relation to Adenoids, possesses coincidental association not entirely devoid of clinical and pathological significance.

Searching the mass of literature on the subject and a careful observation and study of the cases that come to us day by day, there is only one rational conclusion at which to arrive, i. e. that of careful and thorough removal. Tentative treatment only retards or lessens the pathological process, allowing it to pursue its course of death, devastation and decay untrammelled.

The finger nail, the forceps and the curette have been christened, "The trinity of removal." In my opinion, the finger nail is not to be considered, the forceps questionable, unless the tissue is in one mass, well defined and centrally located; while the curette is the most reliable means at our disposal.

We will not usurp your time in discussing the merits and demerits of the various ways of removal. All of them tend to serve the same purpose.

"Remove the entire growth without injury," said one noted Laryngologist, and in my opinion, that fits the case entirely. There is not question as to the indications and the results to be obtained.

This tissue is the bane of childhood, the *Bete noir* of the physician, and the regret of adult life. Its effects are far reaching, and as countless as the stars. The Ear, Eye, Nose, and Throat are made to suffer in their functions by reason of its existence. Manhood and womanhood alike suffer from its ravages, mentally and physically. A tired listless expression, and a vacant stare, in many instances, are evidences of its handy work ; while our institutions of restraint are peopled with its victims. Thousands of tired little feet and hands sleeping on the hillside," 'neath the dew-drops and the daisies," whose spirits have gone to join the "choir invisible" are results of its influence and neglect. The cares of motherhood are augmented and the trials of life increased by reason of its being, while thousands of cases are permitted to live out a miserable existence while our learned Profession are wasting the years indulging in hairsplitting, theoretical discussions trying to devise ways and means of non-operable treatment.

If I have caused you to think, and later to act, I will be amply repaid, and, in closing, permit me to remind you, that from time immemorial, sacred History hath proclaimed from the pinnacles of the Ages, "In as much as ye did it unto one of these little ones, ye did it unto me."

Abseess of the Liver.

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It is of more worth to a man to study something as thoroughly as his time and opportunity permit and to give the results of his studies, though he may not have thoroughly mastered the subject, than for him to rehearse most accurately something that he and all his readers have mastered long ago. So here, Im aattempting to study the diagnosis particulary, of hepatic abscess, for I was forced to review the subject recently in my work, and as all must so do I feel far from satisfied with the result. I am offering nothing new.

Situated on the surgical side and in the surgical end of the abdomen, if we omit gynecology, confused with gall-bladder and gall-duct lesions, with lesions of the stomach and duodemum, the kidney, the pancreas and the appendix, in the abdomen, and with those of the pleura, the diaphragm, the lung and the mediastinun, as well as the pericardium on the left side above : in itself subject to a large number of pathological changes, and at the same time altered widely by diseases whose chief pathology lies elsewhere, the liver will for a long time continue to puzzle the most astute and pains-taking diagnostician, and cannot but remain forever an unknown and unmeaning field to the examiner of slack methods. It lies in the center of the storm zone of the abdomen, subjected to so numerous internal and external vicissitudes that the best we can do in diagnosis is often pitably poor.

The evidences of abscess of the liver are to be divided into local signs and symptons and general or constitutional evidences. Then, to be practical, we are to search for

evidence determining whether one or two large pockets of pus are present, or numerous small ones; whether, in a word, the case is or is not susceptible of benefit from surgical treatment. Of however much interest the purely scientific side of a case may, be the real test of its value will always remain on side of practicability. Then comes the differentiation of liver abscess from various other confusing local and general conditions. It is absurd for the surgeon to imagine that he is so exclusively a mechanic, that it is useless for him to eternally develop in every possible way his diagnostic acumen. The surgeon has always to remember that diseases overlap each other in their symtomatology, an atypical medical case resembling some distinctly surgical affection, and another to-day non-surgical, while to-morrow it is surgery alone that offers hope for a life.

Local Evidences of Liver Abscess.

It is stated authentically, and I am prepared to believe it, that there is no sign or sympton of hepatic abscess which may not be absent. I may add, conversely, that there is almost no sign or symptom which may not be present without abscess. At times there are both no valuable signs and no diagnostic symptons. For the physical signs to have any great value, the abscess must have reached considerable size and must be located at or near the surface of the liver, and all deep or small abscesses must remain problematical.

The liver is enlarged. This enlargement is in the line of least resistance and if it occurs more frequently in the upward direction it is because of the situation of the abscess. When at or near the upper surface, upwards is the direction of encroachment: when situated in the lower portion the increased dulness will be towards the epigastrium. I have operated on a case of solitary abscess of the liver in which the line of liver dulness was not elevated, but below it reached to the crest of the idium. The limitation of the area of increased dulness will depend on the contour of the abscessed liver.

Tenderness, where present may be either circumscribed or general over all the liver surface that can be reached by pressure. This tenderness will vary so widely as to be often of no value; besides tenderness may result from many causes, and the physician is to judge always of the extent of tenderness present from the statements given him by the patient under examination. The individual factor, the personal equation is to be determined as much as possible in every case.

Fluctuation is valuable, when present: yet it by no means is to be interpreted as signifying pus, whenever the sign is present. It means fluid, and that only; the determination of the nature of that fluid must be decided by other evidences or go undecided. It is, furthermore, difficult, at least in my hands, to be sure when one gets real fluctuation, especially if indistinct, due to the presence of fluid, or semi-fluctuation occuring both in certain normal tissues and in other pathological conditions. The best means I know for eliminating error is to have an assistant press with the inner edge of the hand on the surface lying between the palpating hands of the examiner and thus more or less effectually interrupt the waves of the solid tissues without in the least altering those transmitted through underlying fluids. Absence of fluctuation is only negative evidence, whose chief value often is to mislead the diagnostician and cause him to allow the last opportunity for saving a life to escape before a conclusion is reached. Now and then perhaps fluctuation may be felt, and that more easily in the intercostal spaces. The wideness of the spaces, the tissues lying between the skin-surface and the abscess cavity and the location of that cavity are factors influencing the feasibility of intercostal palpation.

The friction sound resembling that of a pleuritis may be heard if the peritoneal surface has become inflamed.

Edema over the surface of the right lobe, when other suspicious evidence is at hand, is very important. It is one valuable sign of a deep suppurative process. Circumscribed edema and infiltration are evidences of a threatened rupture of the abscess at the point of their appearance. It by no means follows that if left alone the abscess would always rupture at that point.

Aspiration would seem to be capable of giving us a certainty; but even this, the surest means of all, at times fails to show pus when present in considerable quantity, to say nothing of minute abscesses. The The evidence from aspiration will be more satisfactory always, in case no pus is withdrawn, to examine the serum, blood, and small chunks of tissue that may be obtained by the needle. Failure to find present pus depends on the following self-evident factors: First, the needle may not be long enough or deeply enough inserted to reach the pus cavity; second, it may become blocked, owing to small caliber or to pieces of tissue engaging in its lumen, so that suction cannot draw pus through it, third, it may pass completely through the abscess cavity and collect only bloody serum from healthy tissues beyond; this last may be avoided by gradually withdrawing the nee-

dle before cutting off its connection with the vacuum. Aspiration should by no means be done without permission to proceed at once with the operation in case the findings are positive. This in spite of certain claims that aspiration is harmless. It cannot be harmless if the needle goes into a pus pocket and on its withdrawal has the bacteria wiped off not only through its track in the liver but in the peritoneum. This has happened and fatal peritonitis followed the use of the aspirating needle. Hemorrhage, too, has occasionally been known to follow aspiration and result in death. Sadly enough, this is claimed more likely to happen in livers free from than in those containing abscesses. May I repeat; no man should ever aspirate for pus without being ready at once to proceed with a competent operation. Maitland insists that, if a fruitless puncture is made and a second or third needs doing to reach the various regions of the liver, it is better to withdraw the needle completely from the liver each time and thus avoid a shift in the direction of the needle within the substance of the liver and render hemorrhage less likely to occur. Aspiration, if done with trocar and cannula, may help in differentiating between a hepatic and a deep mural abscess, if the abscess is hepatic the flow is influenced by respiration, if mural it is not.

Muscular rigidity is valuable if present; its absence signifies nothing.

Pain may be absent ; usually it is found, and varies from an uneasy ache or fulness and heaviness in the hepatic area to severe intensity. It has the usual peculiarities of pain from liver tissues, namely that it may be felt entrely in that region, or may be referred to the epigastrium or the scapula, the shoulder and the arm on the right side.

When sufficient involvement of liver tissue happens visible enlargement of the skin veins or the appearace of a caput medusae may be expected.

Generel Symptons.

When we take into consideration the the statement of so high an authority as Kehr to the effect that Rouis' series of cases showed local pain, increased dulness, tumor and fever in only 8% of the cases, we can easily see how severely and how often the clinician is put to the test to gather from a given case sufficient symptons to present an unmistakable picture of hepatic abscess; and how frequently he cannot feel, as he would like, that his diagnosis is much more than a surmise ; how often, in fact, with the best he can do, he is far at sea.

Of much importance is the history of the individual under question. I do not mean the simple asking whether the patient has recently been in the tropics or whether he has suffered from a dysentery. Important though they be, they by no means comprise a complete list. Far from it. My reason for emphasizing is that I have so often seen physicians satisfy themselves with an anamnesis embracing no more, and have likewise been myself so many times satisfied to inquire thus shallowly, that I feel most us of us are worthy to be censured. In the light of recent investigations, showing how numerous amebic abscesses are, it is forgotten that there is a great variety of other causes and that we have no right to let them lie hidden in the shadow of tropical abscess. Enumerating, they should be inquired after as follows ; Alcoholism, malaria, influenza, yellow fever, foreign bodies, contusions, wounds, especially gunshot wounds, round worms, diseases of the bile ducts and the gall-bladder, echinococcus, coccidia, tubercle, gumma, typhoid fever, ulcer of the stomach or duodenum, inflammatory processes in and around the kidney ; infection, ulceration or malignancy anywhere in the region whose venous blood is carried by the portal vein, such for example, as appendicitis or pus in the retro-rectal or superior pelvi-rectal spaces ; emboli brought from any remote atrium, escaping the lungs and lodging in the capillaries of the liver, a phenomenon explained, most plausibly by narrowing of these vessels from parenchymatous swelling of the liver tissue. Briefly, hepatic abscess is plainly and unmistakably subject to the laws for the causation of abscess in general, viz., that any local or constitutional agent reducing hepatic resistance favors abscess formation; any natural oraccital means that cause a deposit of pyogenic bacteria in sufficient quantity in the liver substance acts as the exciting cause of abscess ; any infection or suppurative process in the body may by one of the methods of spread of such infection result in invasion of the liver. When it is remembered that the liver is one of the chief agents in eliminating micro-organisms from the body, it is more readily understood how the amoeba stands by no means alone in the etiology of abscess.

General sepsis or the classical chills, fever and sweats of pus-formation, is of great value when present. But the recurrence of this group, resulting from liver infection, is so frequently very similar to malaria that differentiation cannot be made outside the laboratory. Recently I saw a case of this kind. The patient was a man, 47 years old, healthy, stout, active. Has had nothing, so far as could be learned that has any bearing on his present condition. For several days he had severe chills, high fever,

and profuse almost incredible sweats, after which his temperature would come to normal. Chills recurred daily. Later on as many as three a day. Bowels constipated, tongue white and thick. Widal persistently negative: examination for plasmodium negative. Liver dulness distinctly up to nipple and 3 inches below margin of ribs; fluctuation indistinct, and uncertain owing to fat. Spleen enlarged moderately. Leucocyte count 160,000, 70 percent. polymorpho-nuclears. What was it? The attendant leaned toward hepatic abscess. Hourly punctures were made for plasmodium, which was found eight hours after chill, aestivo-autumnal variety. This time, three days later than last count, the leucocytes were 12,000. Ten days later the size of the right lobe of the liver was well within bounds, but there was a dull area in the the left hypochondrium and displacenent of the apex-beat ½-inch above and to the right of the nipple. This time leucocytes were 22,000 with 90 percent. polymorpho-nuclears. The case remains under observation, with his general condition gradually improving; he has ceased to have chills and the average of his daily temperature is much lower.

Loss of appetite and the consequent weakness, emaciation and anemia is the rule in liver abscess. Musser has wisely said that in case of an unexplainable revulsion for food search for pus; for pus-absorption always produces loss of appetite.

Repeated urinalysis has a curious value, if the case can be watched through the inflammatory process to pus-formation. When the increased circulation of hyperemia occurs there follows a rise in the output of urea: when the process has continued to pus-formation the out-put is diminished and continues to diminish as more and more of the urea-producing cells are destroyed: that is, in hepatitis, particularly acute, urea is increased; in abscess it is diminished.

Leucocytosis is favorable to diagnosis of abscess; and a differential count has valuable information for the surgeon. But when we consider that the leucocyte count may be markedly, slightly or not at all increased in liver abscess, and that many other conditions may be associated with some sort of enlarged liver we cannot rely on this as having more than a very imperfect diagnostic value.

Jaundice may appear during the course of hepatic abscess, but is unusual and more likely to prove a snare than an aid to the surgeon, since it occurs also in other septic conditions.

The duration of hepatic abscess covers varying periods of time. Eichhorst says: "The duration of liver abscess may extend over a few weeks, some months or several years (to 15), so that we must distinguish between acute, sub-acute and chronic liver abscess." Tropical abscess is slow and the constitutional symptoms are less marked than in acute and subacute.

Rupture of hepatic abscess occurs now and then. The direction of this rupture may be upwards, producing subdiaphragtic abscess, or into the pleura or lung, whence the pus is coughed up containing the tell-tale evidence of its origin. It may open onto the outer surface after adhesion has occurred between visceral and parietal peritoneum; or into the general peritoneal cavity, rapidly developing peretonitis; or into a large vein to result in sudden death. It may rupture also either into alimentary or urinary tract; the symptoms of each class are sufficient in most instances to avoid error.

Rupture and escape of contents, if in a favorable direction may result in self-cure of the case. This is also accomplished by calcification and inspissation. Any such outcome is so rarely seen that it is worthless to consider it as a possibility.

If the abscesses are small or very numerous, the symptoms are little,if any, different from those of septico-pyemia. I saw a case recently of this kind. The patient had been alcoholic with a big liver. He developed septic symptoms following a self-inflicted knife-wonnd of the neck. Abscess of the liver was diagnosed and he was sent to me for operation. Aspiration was done and proved negative. Post-mortem showed numberless small abscesses throughout the abdominal and thoracic viscera.

The favorite position of patients having liver abscess, if there is one, is supine with the right thigh flexed and the body bent toward the right (Kehr).

The spleen is enlarged in hepatic abscess: it likewise has the same capacity to confuse that enlarged liver has. It so frequently is associated with enlargement of the liver in non-septic cases that its diagnostic value is small.

When the lung is compressed or the pleura is inflamed,dyspnoe and cough apperra.

So the diagnosis of liver abscess, as other hepatic lesions, is an uncertain quantity and we must continue to overlook them and mistake other lesions for them until some more definite or more tangible evidence can be brought into service.

Spasmodic Croup in Children.

By W. T. Grove, M. D., Eureka, Kansas

The subject of croup is one that interests all, but perhaps more especially the young

practitioner. The doctor is usually called at 11 o'clock or perhaps somewhat later in the night, to hurriedly reach a very sick little patient. These attacks come on usually in the early fall or winter, and the latter days of spring time. The attacks generally follow the night after a beautiful, sunshiny day, the child having contracted a cold during the day. In my experience, one of the greatest causes for such trouble following such nice, warm days, is the fact that inasmuch as the day was beautiful, children who are accustomed to staying in house, perhaps in many instances badly ventilated. are allowed by the mother to play in the yard or in the road, perhaps not thinking whether the child is properly clad, even if the day be so nice. The mother is doubtless busy with her domestic duties, the child is allowed to become thoroughly chilled, and internal congestion results. They are probably running and get sufficiently warm and along with it breathe through their mouths, thus taking air into the larynx which is cold, unwarmed and unmoistened by the turbinated bodies.

Perhaps our patient may be a victim of adenoids and has enlarged tonsils, in fact the majority of them are, and you may have complications of earache, and so-called otitis media, which might result into a suppurative type. The trouble usually commences with a cold or so-called rhinitis, caused by the cold and mouth-breathing, the child playing on the cold, damp ground. thereby facilitating and intensifying the condition which is supposed to be harmless by the mother, owing to the beauty of the day, the glowing sun and apparent warm atmosphere. The child perhaps eats more heartily for supper, undoubtedly many things which do not agree with his digestive appartus. In lying down you have a blocked or congested condition of the nares, nasopharynx and fauces. The trouble extends to the larynx. The little patient's laryngeal opening which is perhaps small becomes swollen. This in turn inflames the muscles of the vocal cords, thereby rendering them tense similar to that of other muscles in cases of trauma or inflammation, and they are merged into a so-called local spasm. When this happens respiration is embarrassed, the child feels a sudden tendency to asphyxiation and commences to cough and try to relieve himself and perhaps he is hardly awake before he has aroused the mother with his rasping, violent, croupy cough. She at least becomes alarmed and sends for medical aid in post-haste. The old fashioned remedy used to be a prompt emetic and the one most usually used was tartar emetic, turpeth mineral, or ipecac, or the compound syrup of squills. These would generally relieve the condition fairly promptly, relax the patient, but at the same time depress them, producing nausea which is likely to be prolonged.

Some fourteen years ago I was called to see a little patient (Dot B.) who had suffered the year previous from a true case of perhaps diptheritic croup. The ordinary emetic did seem to relieve this little patient. The headquarters being quite comfortable and the mother being very loving and kind, both to the child and to me, allowed me to go to bed. It being in the country quite a distance and the tendency of the croup to not yield to ordinary methods induced me to accept of the invitation to stay all night in order that I might relieve the little patient at any future time during the night. It was at this time the thought struck me, if he bromides were good to relieve spasm of a general character, why would they not be good to relieve spasm of a local character, such as we find in an attack of spasmodic croup, in the vocal cords and laryngeal muscles? So I proceeded to give the little patient from one-half to one drachm doses of the elixier bromide of either potassium or sodium, whichever happened to be handy. This was ordered to be given every half hour until the patient became quiet and fell into any easy breathing sleep. I usually dilute the medicine about one to four to six in water. We usually put around the patient either hot bricks or hot water bottles, in order to bring about a nice little sweat of sufficient warmth to induce a mild state of diaphoresis to just the extent to induce the perspiration to appear. This aids the bromides in relaxation and induces in perhaps one-half to one hour or one and a half hours a sweet, refreshing, unembarassed respiratory sleep. Everybody seems glad and our little patient sleeps with us.

Since that time, rather than give the nauseating drugs, it has been my custom to rely almost wholly upon the bromides to control this condition, and it has been so successful in my hands that my patients always keep a stock of the same on hands, especially where there are any symptons of croup. This allows the doctor to get his usual office fee, saves a night visit, and also the mother of the anxiety as soon as she notices any symptons of croup appearing, and is usually readily administered. Iodized calcium has been greatly lauded and it has been my custom of late to use it in one grain doses every ten to fifteen minutes in connection with the bromides, but whether it does any good or not I am unable to say.

The manner of administering the bro-

mides is as follows:—A baby several months old up to a year old I give one-half drachm doses of elixir sodium or potassium bromide every half hour in four times its volume of water, until the child is relaxed and quiet. Usually two to three does are sufficient. Subsequent doses need only to be given two or three or four hours apart. Older children we increase the dose up to one, one and a half or two drachm doses as required.

Along with my treatment, more especially the day following, I order one or two warm baths to be given, one in the morning and the other just before retiring, using a teaspoonful of magnesium sulphate to one pint of water. The object of this bath is to hasten elimination of the skin glands, thereby relieving the mucous membranes of their congestions. I usually give a physic, most generally calomel perhaps about one grain, and by morning this is sufficient to purge the bowels so as to work off the toxic materials from the bowels, liver and glandular system in general, together with its antiseptic effect upon the swallowing of exudate which is coughed up and snuffed back in the posterier nares and swallowed by such little patients, as is always the case in any respiratory trouble and by an ordinary cold, cold with croup or pneumonia, and by the child vomiting up any of the medicine we have accomplished what our forefathers tried to do. If the stomach seems to be nauseated I usually apply a mustard draught to the epigastre region, which acts very nicely to allay same, to the extent of gentle redness. These I usually keep in my grip, prepared by any of the houses, and in two or three minutes you get the effect.

If any one doubts the efficiency of the effect of the magnesium sulphate bath I advise him to use the bath preparation when he is feeling bad and knocked out. Take an ordinary sponge bath every night for three or four nights before retiring. Soap must never be used in this bath for the reason that it is acid in reaction and soap is alkaline in reaction and the magnesium sulphate neutralizes the soap and reforms grease and leaves a very dirty, disagreeable condition.

I give in connection with this a little aconite, which always acts very nicely in all colds, using about two drops to the ounce combined with five or ten grains ammonium carbonate in syrup of tolu, one-half teaspoonful every half hour; or in lieu of that I use veratrum the same dose with six to eight drops to the ounce. I not infrequently in fact, combine the aconite and veratum, using about one-half of each of the above preparation when combined.

Then it not infrequently happens that when a person is called to a croup case this plan of procedure will quiet it but you have a repetition of the same the night following, and perhaps the next night following. In some cases this might possibly be an ordinary spasmodic croup, but where the conditions remain it generally develops into a true laryngeal diptheria or so-called pseudo-membraneous cronp. Our little patient in such conditions does not feel so well the next day, he is knocked out as it were, and the second day he is knocked clear out. It is always well to inspect the fauces. In the former case you will find redness which is very nicely relieved by the application of ten grains of menthol in one ounce of liquid petrolatum, swabbing the fauces, pharynx, and extending down to the larynx with the application. Where you have the tyye that does not get well the first night and continues two or three days, if you will notice the breathing you will notice a peculiar labored respiration, becoming more and more embarrassed and you have a peculiar cough, One way you can illustrate it is like a chicken when you catch him and he tries to squall and you catch him by the throat and choke him, he makes a peculiar sound which reminds me of a cough in a so-called membraneous croup, which cough is pathognomic of membraneous croup or diphtheritic croup. In all such cases the earlier you can inject anti-toxtine and in sufficient doses, the more happy you will be in a day or so. And when any such suspicions are aroused it is best to quarantine the little in one room, especially if you have other children in the family. It is not the purpose of this paper to take up the treatment of diptheritic croup. I only mentioned this so as to put the practitioner on his guard, because it has happened a number of times with me where we supposed we had an ordinary case of croup, which resulted in a very short time in a well defined case of laryngeal diptheria.

Of course there are other measures that might be mentioned, but the object of this paper is to mention the conditions which bring about a croup, together with my treatment, which has been a source of great pleasure to me. I do not know that I have read of this any place, neither do I claim that it is original with me, but I tried it upon the analytical theory as above claimed, and I have never had reason to depart therefrom, as it has always served me well.

Cases of Head Injury with Operation.

Read before Virginia Medical Society at Chase City by H. Stuart MacLean, M. D., Prof. of Pathology, Univ. Coll. of Medicine, Richmond, Va,. Chief Surgeon, Va.; R. & P. Co.; P. & P. Co.; R. & C. B. Cy. Co, Visiting Surgeon, Virginia Hospital, Richmond, Va

Cases of head injury are of special interest because of (a) the attendant difficulties in differential diagnosis; (b) the slow development of sequellæ in many instances; (c) the fact that the diagnosis is freqnently dependent upon peripheral demonstrations far removed from the seat of the trouble, combined with a complex array of symptoms referable to a variety of causes.

Brain lesions may be considered under the heads of "Concussion," "Contusion" and "Compression."

Cerebral concussion has been the source of much study and many diversified opinions. It is characterized by an unconscious condition varying in severity—a condition which directs attention to a widespread involvement in the cerebral cortex, where are located the various conscious centres. It yet remains to reconcile such an involvement with the usual scarcity of post-mortem findings in many of these cases. The symptoms have been explained as due to the effect of a more or less violent vibratory motion of the brain. The experiments of Koch and Filchne have demonstrated that the symptons of concussion may be produeed by rapid slight blows as well as by a single violent blow, and this leads to the conclusion that the effect is one of derangenent in functionation rather than injury to or dissociation of the cells.

Where so many different opinions seem to hold with reference to the actual conditions existing in concussion, it usually transpires that there are more than one etiological factor, and in one case reported below (Mrs. M.) I met with a condition which I believe might be considered as offering a reasonable explanation for some cases of concussion. After opening the dura, a copious, rhythmical flow of clear, straw-colored fluid occured. The quantity probably reached six drachms during the operation and continued for some time through the drainage. In this case there existed, among other injuries, a slight depression, and, as the patient was unconscious, trephine was done. No pressure from bone was found and there was absolutely no hemorrhage. The pulsation of the brain was noticeable, as was the intermittent expulsion of the serous fluid from the wound. This edematous condition must have been due to some local vasomotor disturbance favoring transudation of serum, with the consequent pressure effects. Had there been no other injuries requiring operation, I am inclined to believe the cerebral effects would have passed off in the way they frequentlv do in concussion.

Concussion may be defined as a psychological condition or brain shock, analogous in a sense to the peripheral and central nervous symptoms following shock from fright or accidents of various descriptions. Essentially a true case of concussion carries with it no gross lesion. When there exists any tangible lesion, as punctuate hemorrhage, softening, or separation of the cortex from the white matter, it has passed into the class of contusions.

Contusions of the brain may be very extensive without giving rise to decided symptons. In it we always have a greater or less amount of laceration of the brain substane, with the attendant capillary hemorrhage and the natural steps of exudation; and effort at repair or regeneration in such cases may result in long continuance of the symptons and even serious permanent defects. The possibilities of serious effects are greater in contusion than in compression.

It should always be borne in mind that in fracture of the skull with depression of bone, the symptoms may be due to laceration of brain substance and not to pressure effects. This would explain why in some cases operation gives immediate relief and in others relief comes slowly if at all.

Localization is not always possible in contusion of the brain with fracture of the skull, as the force producting the injury, when it has passed the skull and reached the brain, is transmitted in all directions. In this way, large areas of the brain may show damage; as, for instance, extensive laceration with accompanying hemorrhage, when a mixture of blood, serum and brain substance will flow from the wound in the form of a thick, grumous fluid. It is probable that the difference in density of the gray and white matter of the brain predisposes to laceration at the point of junction of the two in cases of violence, the vibratory waves lasting longer in the one than in the other.

Cases of compression constitute the largest portion of brain injuries and usually preents a symtom-complex which admits of fairly accurate differential diagnosis, especially when there is a history of head injury. Free blood in various stages of coagulation and fragments of bone constitute the foreign substance responsible for the compression. The capacity of the skull is fixed, as is the quantity of its brain contents, and this proportion can be varied only by reduction in the amount of blood or withdrawal of the cerebro-spinal fluid. In trau-

matic compressions, the foreign substance encroaches upon the brain, which is congested and edematous "wet" from the associated irritation; hence the pressure symptoms appear more quickly than in the case of a slowly developing tumor or abscess, where the brain can in a measure accomodate itself to the increasing pressure by constriction of the vessels and shifting or absorption of the cerebro-spinal fluid.

During the present year I have had nine cases of head injury requiring operation on the brain. These cases have all been of considerable interest in presenting either new conditions or unusual complications, but, for the sake of brevity, only five will be described in detail.

Six of the cases had external wounds, eight had fracture of the skull, seven had clots, extra or sub-dural. Five were operated upon within a few hours after the injury, one was operated upon twenty-four hours after the injury, one two days afterwards and two four days after. Of the nine cases, eight made uneventful recoveries and, so far as they can be traced, are perrectly well now.

The treatment has been to open the skull with a three-eigth inch trephine, enlarging the opening as required with a de Vilbiss forceps, which has entirely supplanted trephine in my hands. Openings measuring, roughly, threefourths by one and a half inches have been made quickly and smoothly with this very handy instrument. Drainage is freely used—either small rubber tubing or tightly twisted stands of silkworm gut, packing the bone opening lightly with gauze. No foreign body has been used to replace or stimulate regeneration of bone in the closing of these wounds, the only procedure being to draw the peritosteum as far over the opening as possible, allowing it to fall in on the dura mater. It has happened that the nine cases I have had this year have been young people, and my experience has been that there is considerable regeneration of bone under these circumstances.

I have not had much experience with the use of foreign bodies for replacement, but am theoretically prejudiced against their use and, should the occasion arise for filling a large opening, I intend to do it by transplanting a piece of the outer table, with its periosteal covering, adjacent to the wound.

These cases and, in fact, all the brain cases I have had in the last few years—have impressed me with the remarkable tolerance of the organ to operative work and the comparative rarity of inspection. All these cases were freely drained, the drainage being removed in about thirty-six hours and the wound dressed in a routine manner; yet in but one (the last reported) has tehre been a suspicion of infection. So strongly has this been impressed upon me that I am inclined to advise trephining in place of lumbar puncture in cases of cerebro-spinal mengitis when decompression is indicated. I would certainly prefer a small trephine opening in meningitis cases where the symptoms pointed to a proponderance of the cerebral involvment.

Case II—M. J.; age 25; colored. Lacerated wound on back of head, with fracture of skull in upper portion of occipital bone one inch to right of the median line. The upper margin of the fracture was depressed one-fourth of an inch for a distance of three-fourths of an inch. Upon removing the depressed bone and incising the dura, about three teaspoonruls of brain substance flowed from the wound. There was practically no hemorrhage and no clot. The case was drained with silkworm gut and left the hospital, perfectly well, in three weeks.

Case V—A. I.; age 19; white. Was sent to me from Caroline County with the following history: He had been struck on the left side of the head by a falling limb while cutting lumber, receiving a considerable bruise but no wound. Twenty-four hours later he developed a slow pulse with severe headache. I saw him two days later, when he had partial loss of motion of the right arm and leg but no facial paralysis. Operation the next day revealed a stellate fracture of the outer table with splintering of the inner table. The dura was lacerated and an oval clot, very firm in consistence, was removed with difficulty. Pushed directly into the substance of the brain and imbedded for a distance of about a half-inch, was a spicule of bone about five-eighths of an inch long and three.eighths of an inch in width at the base. The edge of this piece of bone was located only after a search inaugurated because the piece was missed from the inner table. This case was drained for two days and healed up promptly, with complete recovery from all the symptoms.

Case VI—Mrs. M.; age 22; white. Injured by being thrown down by a street car and dragged under the fender for a considerable distance. She had the following injuries: compound comminuted fracture of both bones of the left leg; lacerated wound of calf of right leg; compound Colles fracture of right wrist; extensive lacerations ot back of left hand; punctured wound of right elbow joint; several cuts on the face and three bad scalp wounds. Patient was unconscious when brought to the hospital,

with a pulse of 68. She could not be roused, the response to peripheral stimulation was very sluggish and uncertain and the pupils were moderately contracted and unresponsive.

While dressing the wounds it was discovered that there was a depressed facture at the bottom of the wound above the right temple, and, as the depression was one-fourth of an inch in depth, it was determined to trephine while the other dressings were being done. A three-eighth inch button of bone was removed and, upon incising the dura mater, a quantity of clear, straw-colored fluid poured out, flowing with rhythmical interruptions corresponding to the pulsations of heart. There was no intercranial hemorrhage. The wound was closed except for a little gauze drainage in the bone opening, through which the serum continued to flow with surprising freedom.

This woman resumed consciousness very slowly, but at the end of two weeks she has entirely regained her mental faculties and the sensation of her limbs. Her convalescence was, or course delayed by her other injuries. I believe that, so far as the cerebral trouble was concerned, this woman simply had concussion and would have recovered from it without operation: certainly she had no apparent laceration or hemorrhage of the brain, and if her symptoms as referable to the brain were the result of concussion, then it is reasonable to assume that the extraordinary amount of serum found bore some causative relation to those symptyns. I believe the shock of the accident produced a vasomotor paralysis which favored the abnormal escape of serum and the symptoms resulted from the pressure incident thereto.

Case VIII—J. p.; age 16; colored. This boy was thrown from a wagon, striking on the top his head. He seemed all right for twenty-four hours, except for headache and a pulse ranging from 60 to 70. Then he lost the power speech. No other facial symptoms presented themselves except that at intervals he would have a momentary weakening of the muscles of the right side of the face and a deviation of the tongue slightly on the *right* side. This symptom was very transitory and I did not consider it sufficiently definite to determine the wisdom or site for an operation. Seventy-two hours after the accident, he was taken suddenly with violent convulsive seizures, which, as they relaxed, left partial paralysis of the right arm and leg. I had considered the advisability of trephining over the speech centre on the left side prior to these seizures, but had been deterred by reason of the conflicting symptoms occurring in the face; but upon development of the convulsions I made immediate preparations and trephined on the left side about one inch above and one-half inch in front of the left ear. There was no pulsation of the dura upon exposing it, and upon opening it the brain presented and protuded. A grooved director was passed directly into the cortex. At a depth of one-half inch a quantity of grumous, clotted blood rolled out alongside the instrument. Altogether about 1 drachm was expelled. This clot being found just above the fissure of Sylvius. I felt sure there was more trouble higher up, so I enlarged the opening in the bone up about three-fourths of an inch toward the median line, when I found a transverse fracture of the skull with a separation of about one-sixteenth of an inch, and both a sub-dural and extra-dural clot. From the amount of separation of the edges of bone I estimated that the fracture must have been several inches in length, but, of course, did not endeavor to trace its extent. The extra-dural clot was a small one about one inch in diameter and one-fourth of an inch thick, but the sub-dural clot was a large one, about two inches in diameter and three-fourths of an inch in thickness. This clot was gradually wiped out, put in doing so profuse hemorrhage started from beneath the posterior margin of the bone at the point of fracture. which could be only temporarily controlled by packing. Believing that the hemorrhage was coming from the posterior branch of the middle meningeal artery which had probably been ruptured by the fracture and thus produced the clots, and not wishing to remove more bone in order to get at and tie the vessel, I stripped the dura free from beneath the posterior portion of the bone opening and grasped it firmly in a long-jawed artery forceps, hoping to thus catch the ascending artery and check the hemorrhage. This expedient was successful and the further steps of the operation were completed, leaving the hemostatic in situ. The wound was well drained and dressings applied, leaving the handle of the clamp extending from the dressings to facilitate its early removal, which was done within twenty-four hours. Within fourteen hours the boy had regained consciousness and sensation and could answer questions in monosyllables, and in a little over two weeks was up and walking about, the wound having healed promptly.

This operation was performed about two months ago, and a few days ago I saw the boy, when he seemed perfectly well. As a large area of bone was removed, he has a space about an inch in diameter where the brain pulsation can be noticed, but this area has reduced almost one-half since he left the hospital.

Case IX—R. B.; age 20. colored. This man went to sleep on the side of the R. & P. track, with his head resting on the rail, and it was struck by a car and rolled over by the pilot or wheel. Unfortunately, he had elected to put his head right over the plate used to bolt the rails together, and he had three deeply depressed fractures on the right side of his head, one about one-half inches further back and on a line with the first two.

These fractures were deeply depressed or punched in, in the most posterior one the outer table being forced in past the normal level of the inner, and all three badly ground full of grease and grit. He also had a longitudinal fracture on the top of the head, about three inches in length, extending through the outer table, with much of the outer table gouged out, but without depression. I addition to the buttons of bone, over thirty pieces were removed from the fractures on the right side and the wounds well drained.

For three days the patient lay in a stupor, with pulse ranging from 70 to 80, pupils reacting moderately and slight response to peripheral stimulation, with occasional spells of violent efforts to get out of bed. On the fourth day he showed signs of returning consciousness and began to speak in monosyllahles, and by the end of a week could say a few words, ask for things he needed and gave every evidence of recoving. On the ninth day his temperature suddenly shot up to 104°, pulse ran to 160 and then became too feeble and rapid to detect, respirations between 50 and 55, and he lapsed into a profound stupor. The wounds were dressed when this condition set in, but they were clean and practically healed, except the one on top of the head, which was discharging a little pus from a pocket under the scalp. He died within eight hours.

I believe death was due to some form of acute cerebritis or, possibly, an abscess at the base of the brain.

Contribution to Local Anesthesia.†

By L. S. Oppenheimer, M. D., President Association of Seaboard Air Line Surgeons, Tampa, Fla.

A great many new experiments and investigations are now being made in general and local anesthesia. At no time for many years past has been manifested so strong a desire to improve upon the present crude methods. As surgery increases and the tyro "rushes in where angels fear to tread" anesthetics become a dangerous blessing, and mortalities multiply.

†Read before the Hillsboro Co. Med. Soc. Jan'y 7th, 1908.

Investigations are going on with rectal anesthesia, heating and vaporizing the anesthetic, spinal anesthesia, nitrous oxide, ether and oxygen, bromide of ethyl, hyoscine and morphine injections, and the numerous local anesthesias, with solutions of varying strengths of cocaine, eucain, magnesium sulphate, holo-caine, alypin and others, the Schleich infiltration method, the blocking of nerve trunks, etc. The multitude of these indicate our imperfections.

This article intends merely to direct attention to cocaine local anesthesia with some restrictions and suggestions. This drug still offers the greatest advantage, but not in the solutions or manner commonly resorted to. A solution in plain sterile water, always freshly prepared, of 1-1,000 or 1-500, infiltrated thoroughly and liberally into the tissues to be disturbed gives ideal anesthesia in the vast majority of cases where local anesthesia is practicable. The quantity for various operations varies from 10 to 200 minims. These are 1-10 of 1 per cent. and 1-5 of 1 per cent. solutions respectively, which are the strengths I customarilly use. I have never noticed any untoward effects following the use of these solutions. It should be remarked here for anesthetizing mucuous surfaces this is too weak. But the conventional 4 percent. solution when applied to throat or nose sometimes gives rise to alarming symptoms, and, occasionally has resulted fatally. For nose and throat work in children eucain or alypin are preferable. I do not give a general anesthetic for most adenoid or tonsil operations. Several fatalities have followed its application in simple adenoid work, and I am afraid of it.

Naturally many physicians fail to get perfect local anesthesia with the weaker solutions. This is due to their faulty technic—not to the anesthetic. I have observed these failures repeatedly in the hands of some our best surgeons. As much skill may be required in this as in the general anesthesia, but the comparative dangers of the two are so much in favor of the local method as to be incalculable.

I began using a 1 percent. solution for minor operations years ago. For the past five years I have used a 1-500 solution for many major operations including amputations up to the middle third for the extremities, fistulae, hemorrhoids, inguinal adenitis, suprapubic cystotomy, appendectomy, herniotomy, radical hydrocele and varicocele, circumcisions in adults and children, preceded in the latter by a few whiffs of chloroform and using a 1-1,000 solution.

The subject is too extensive to enter into thoroughly in a paper of this kind, but I

may be pardoned for touching upon a few of the striking obstacles and a brief allusion to the technic. In amputations it is necessary to infiltrate and block off the nerve trunks just above the line of section by liberal deep injections with a long needle. In fistulas, the two important factors are divulsion of the spincters and curettage. This anesthesia requires a solution not weaker than ½ of 1 percent. The technic consists in making thorough infiltration of the skin area around the anus, then with a director or probe in the fistula inject around the entire tract or tracts, then inject around the sphincter area deeply. The divulsion requires but little more force than when under a general anesthetic, which as all of you know demands the most profound anesthesia known in surgery.

In smaller hemorrhoids that do not cover too large an area or too high up, the clamp and cautery are practically painless after the injections, which are made as in fistulae.

In appendectomies when the peritoneum is reached, it is often found necessary to resort to general anesthesia, especially if there be much acute inflammation and adhesions. For pus cases the local anesthetic is all that is necessary. For the removal of tuberculosis or other glands or curettage of buboes the injections are made under and around the glands after the skin has been incised, and are followed up as the operation procedes. In herniotomy many operators fail with the local anesthetic. The principal reason for this lies in their failure to specially anesthetize the nerve sheaths as they are reached in the dissection.

This article makes no claim to being novel nor original, its only aim is to call attention to some points in this field that are either not generally known or are not made proper use of in every day practice, and the vital importance of the subject certainly demands the best endeavor of every conscientious surgeon.

Cinical Gonorrhoea.

By Thomas W. Murrell, M. D., Lecturer on Syphilis and Dermatology, Supt. of Genito-Urinary Dispensary, University College of Medicine, Richmond, Va. Consulting Dermotologist to Virginia Hospital and Methodist Orphanage, Richmond, Va.

The above title has been chosen for this paper because to my mind there are two distinct diseases,—the gonorrhœa of the textbooks and the gonorrhœa calling at the physician's office. This is, of course, not a difference in disease but a difference of view-point and in no other disease does there seem to be such a lack of harmony; between the war-office and the army, between the laboratory and the doctor.

The medical world is a world of enthusiasts. Enthusiasts are extremists and extremists wear blind-bridles. So it is that we have two types, the doctor being so engrossed in scientific research that he becomes dazzled by a scientific ideal or disgusted by the sane scientific claims, he falls back on empircism in either case at the expense of his patients.

Due to this we have violent champions of every new idea, these same champions have a new idea every time they read a clever article on the subject. The much vaunted specific of to-day is relegated to the garbage heap of to-morrow and what once held down the gonococcus can no longer hold such a man's good opinion.

Because of the horrible results of two little science and the gloomy forebodings of two much science the question of the curability of gonorrhœa is a pertinent one. On one hand we have the convert of the German or Austrian school. His mind is full of the findings of those men whose practice is limited to the microscope and a dead body. He thinks of the mighty genius of Finger and this shadow falling athwart his treatment, he goes on his way with little confidence regarding himself as one who pallites but never cures.

His friend, usually of the pre-aseptic era, lives in the past. He is an enthusiast over certain set prescriptions and considers all his cases cured. He laughs at the virulency of the morning-drop and gently pooh-poohs the microscope; lovable and much-beloved. a comforting optimist, he goes his way, literally uncorking vials of wrath on his unfortunate patients.

Is there no middle ground to these two, for all knew them, cannot we combine the faith of one with the science of the other; in other words, *is gonorrhea curable?*

In answer to this question we should ask do you work for a scientific ideal or do you work for results? Personally, I cannot say whether or not I have eradicated all gonococci from the cases I have pronounced cured, but I have treated cases in which an expert microscopist could find no gonococci in seminal discharge, strippings from the prostrate or by the inducing of an artificial inflammation. These men have married, having no further trouble themselves, their wives remaining healthy and bearing children.

Even if Finger were right, what difference does it make to me if gonococci are present which do no harm? This I know is dangerous doctrine and rank bacteriological heresy, but in these cases, one of two things must have necessarily occurred; all

the gonococci were killed or those that remained were rendered harmless.

I have no idea and cannot say which end of the ultimatum is the correct one, but I do know that any treatment that reforms and transforms the gonococcus into a quiet and peaceble citizen, does as much good as one which consigns him to a microbic hell.

The great Finger and the "gloomy Noeggerath" with their disciples in their extremity possessed one great virtue, namely, they did no harm.

Every medical fad, as a rule, numbers its victims among its victories, but the preaching of the gospel of the all-pervading gonococcus did good in every way except in one. The wholesome respect for the gonococcus is not misplaced and if a man can be kept from vice by terror. the results physically are the same as if restrained by purest morality.

But the great cause of healing moves in no such garb. Truth must ever be its watch-word, plain and unvarnished truth, and we are now seeing that while these men were honest in what they taught, they in the bright light of science saw dark shadows with the substance and thought them one.

In the American Medical Journal of July 6th or 7th there was an extract of Erb's report published in Munich in 1906 which I will quote at some length :

"It seems to have been gladly accepted that at least 80 per cent. if not 99 per cent. of all men have suffered from gonorrhœa at least once; perhaps because such a conclusion permits the man who has been infected to look on himself as quite as good as his fellows, while he who has escaped the disease can boast himself as remarkably virtuous—or fortunate. Likewise the claims of Noeggerath and others as to the prevalence of female suffering from masculine unchasity has been well received by the pessimistic majority. A vigorous shove of the pendulum in the opposite direction has been delivered recently by Erb. * * * Erb first shows by what unwarranted juggling of statistics many of the widely quoted results have been obtained. For example, one investigator found that in one year twenty-five per cent. of all the students in the Berlin students' sick benefit list were venereally infected and promptly deduced that every Berlin student is infected once in four years. By similar mathematical calculations another observer has determined that every man who marries at thirty has passed through two attacks of gonorrhœa—no more, no less! Individuality enters not into the calculations of such statisticians. Calculations on futurities are purely gratuitous and the only accurate way to study such a subject is to learn the histories of mature men and find out what actually has happened, rather than to attempt to estimate, on the basis of a brief portion of the history of a few individuals, just what will happen to all the rest of mankind.

Erb found that of about 2,000 of his male patients representing all circles, but chiefly of the middle classes, whose sexual history was carefully investigated, just 48,5 per cent. of all had gonorrhœa, while 45 per cent. had neither gonorrhœa or syphilis. It must be admitted that a proportion of 45 per cent. of men free from venereal infection cannot be a cause of great rejoicing, yet it is a decided improvement over the doubtful 5 to 20 per cent. of clean histories grudgingly admitted by other statisttcians. Furthermore we are accustomed to believe that our American youths are not so prone to venereal infection as are the Teutonic students, soldiers and officers—a belief that is probably well founded.

As to the influence of this unclean 485. per cent. of all male patients on the health of their wives which has been so gloomily portrayed by many gynecologists, the experience of practioners who are familiar with entire family careers rather than with the selected material of the specialists seem not to be so extremely bad. Among the wives of 400 of Erb's patients who confess to having had gonorrhœa some time previous to marriage, 375 (93.75 per cent.) had never suffered from pelvic infection that could possibly have been of gonorrheal origin and but 17 (4.25 per cent.) had had what probably were gonnorrheal infections. As to the influence of ante-nuptial gonorrhœa on fertility, among the 370 couples of this class 68 per cent. had two or more children, 25 per cent. had four or more children and but 12 per cent. were childless, and in most of these cases some reason other than gonorrhœa was evident."

These observations are of special import in that they are clinical rather than pathological and even if the author is carried away by his own deductions, the wish being father to the thought, yet allowing for some exaggeration, the report is a tremenduous lever in opening eyes that Finger and Noeggerath have sealed.

After all, the virulent "morning-drop" is but a medium and its virulency is due to its virulent contents. As an entity, and especially so in old cases, the morning-drop is more an indication of stricture than of gonorrhœa and a drop of serum, unless it contains infectious agents is no more harmful than a drop of water.

A urethra that is NORMAL will resent the host of drugs used in local treatment

and will speedily become inflamed. Then why does the doctor expect the *diseased* urethra to act in a different manner.

What kills gonococci, kills epithelium and physicians seem to expect as soon as the last gonococcus yields up the ghost that the urethra in one bound will gain its normal state.

Many fields in Virginia, to-day, are scarred by the effects of battle and the hunter in the thicket comes on burned timbers of lordly mansions. The farmer ploughs up bullets and cannon balls but the war is over, these fifty years. The country is well of war, but the scars remain.

It would be as sensible to send out artillery and bombard these same thickets as to give gonococcidal treatment where no gonocccci can be found. This means reliance on exact clinical science which expressed in a word, means the microscope.

It is amusing to talk to the partisan of any accepted method of treatment; he seems to feel it his duty to blind himself to his failures and praise with a loud voice its successes;—of other methods he can say but little that is good. The worst of it is or the best of it is that he can prove his successes along that line. It is equally true that the partisan of the other methods can do the same.

Why is this so? Why can one man do good with what is but a feeble aid to another.

The great composer, Litz, was asked the three requirements in a pianist. he replied: "First, technique, second, technique, third, technique. I am not a musician, so I cannot verify his statement but had he applied it to the treatment of gonorrhœa, it would have been a classic. The fact of the matter is that every method had its virtues and its faults. Every case presents different features and different methods must be tried to attain success.

The hygeinic side of the treatment of gonorrhœa is a most important one and yet so easily over-rated, it may be carried too far. Since it is so very hard to induce patients to do the things necessary, I omit a multitude of instructions and insist on only two things, a strict avoidance of Venus and Bacchus. This is so important that I refuse to treat a patient who will not obey for otherwise your treatment may be useless and your reputation suffer. Nearly all articles on the subject use the old catch phrase "Avoid stimulating foods" whatever that means. We may regulate the diet for the specific purpose of modifying the acidity or alkalinity of the urine, but I must confess that I have never seen diet make much if any difference when the bowels were kept regulated.

Stopping the use of tobacco in one habituated to its use, is one of simple folly. It will do more to wreck the nervous control than excessive use by the same person, and tobacco can only be condemned as a nervous irritant. The less the pledge, the safer the pledge.

The virtues and faults of the different methods and drugs used in the treatment of gonorrhœa may be tabulated in the following manner:

	Virtues.	Faults.
Internal Medication	Lessens Discharge, Chordee, Ardor Urinæ. Disenfects and changes reaction of urine.	Non-gonococcidal, upsets digestion, drug eruptions.
Injections	Used by patient, used frequently gonococcidal, astringent.	Limited to anterior urethra. More or less painful.
Irrigations	Reaches all urethra, gonococcidal, astringent.	Used only by doctor. Troublesome, painful.

In the same way we may classify a few of the drugs used locally:

	Virtues.	Faults.
Argentic Nitrate	Strongly gonococcidal, valuable in posterior urethra as instillation.	Very irritatiug in general Urethritis. Should be used only by physician.
Protargol	Gonococcidal. Can be used in general Urethritis.	Irritating.
Argentic Iodide	Gonococcidal. Non-irritating so can be used anywhere.	Almost inert on tissue covered with muco-pus. Expensive.
Argyrol	Gonococcidal. Non-irritating.	Dirty. Expensive.
Potassium Permanganate	Oxidizer, Astringent.	Feebly gonococcidal. Irritating.

This could be carried out so as to include all drugs used but it suffices to show how futile it is to rely on any method for all cases.

I believe that a great deal of the harm and non-success of the treatments of gonorrhœa is due to that ancient and honorable fraud-anterior urethritis. Scientists give out a dictum with a mental reservation; the general practitioner has no reservations, so with anterior urethritis. Of course, logically, there is bound to be at some time an anterior urethritis, but I do not believe that one case in a hundred could be justly so-called, ten days after infection has become manifest. No more chimerical idea can be well imagined than such a gross macroscopic body as the COMPRESSOR URETHRAE muscle can stop by contraction the upward course of such a minutely microscopic thing as a gonococcus. We might as well expect a flea to be stopped by a picket fence. Because of the difference of the epithelium of the part one being squamous and the other columnar, the anterior urethal cells (squamous) readily answer to treatment, recovering in time without treatment and the gonococci flee to the fastnesses of the crypts and folliciles of the posterior urethra as its final strongholds.

So we have two conditions present and I believe that he who treats gonorrhoea by keeping the medicamet from going back of the bulbous urethra does so in the face of facts and at the expense of the patient. I have tried it, not once, but many times and after repeated re-infections, have given it up in disgust as a simple theory. No sane man would attempt to treat a sinus of the rectum by washing out its lower end; then why treat this sinus so? For it is a sinus suppurating from end to end, and could we treat the disease with but the idea of eradication in view, splitting the uretha from end to end and packing would be sound surgical sense.

"Doctor, when will I be well?" How tired we get of the question, but then the patient is tired too and it behooves us to heed his cry. Can he be well, as long as he has a morning-drop? Yes. As long as there are shreds in the urine? Yes. As long as there is congestion and pain in the posterior urethra? Yes. As long as by any test known to man you can find a gonococci? No; emphatically, No, and this is all that be called, prima-faciæ evidence of the existence of the disease.

In conclusion, I will say that I have written these things in no iconoclastic spirit or with the thought of attracting attention by differing with accepted theories, but as an endeavor to discover that country in which clinical facts and laboratory findings work hand in hand.

"The Menopause."

By Albert D. Parrott, M. D., Kinston, N. C,

The "change of life," climateric, or menopause is the period when the function of menstruation, and usually also that of ovulation ceases. This is indeed a trying and important epoch of woman's existence. It is the autumn of life, with its chilly, blustering and turbulent winds. The balmy spring and summer zephyrs no longer lend their gladdening and enchanting inspiration. No longer does the peach, the fig, and the undulating grain fields bask in the warmth of the joyous summer sun. The harvest time is over. The mellow grain is now garnered in its sheath. And clustering around all this are the hallowed and sacred memories of a glorious and faithful past.

It is the popular opinion that the earlier the menstruation commences, the earlier it will stop. This is a fallacy. The rule is that the earlier the menstruation begins the longer it lasts, that is the active sexual life which is measured by the menstrual life lasts at both ends, begins earlier, and persists later. Fragile illdeveloped women who menstruate quite late late, and whose sexual capacity is not vigorous, who have if married, few children and who if unmarried, grow old prematurely seem to illustrate this fact. There are two very powerful factors—operating at this particular juncture which confuse, alter, and reverse phenomena which almost invariably accompany the cessation of this function. It is generally concluded by the laity that this *Mennorrhagia*, is something trivial, a necessary adjuvant or an accompaniment, signifying nothing, and that time the eternal effacer of all things will effect a cure. It is not enough to say when a woman is flowing profusely at the age, for instance, of forty-five to fifty that it is the "*change of life*," and that it is of no moment, when she gets through the "*change of life*" it will stop and absolutely nothing be done to hinder it. If we stop to think on the other hand, it is just this copious or excessive flow that should interest, and excite our suspicion, and of course the individual should have our attention and treatment, as the case may demand. By our careful and painstaking efforts we may at this extremely unpleasant epoch, make her more comfortable, and allay much suffering and fear.

If for no other reason than the great and increasing frequency with which malignant degeneration and other tumors make their

appearance, especially during the decade from forty to fifty, taken singly, make it quite imperative to investigate these cases with reference to their cause. I daresay if all cases where irregularities, and unnatural menstruation appeared were seen early, and carefully examined by the physician, or were referred for diagnosis to a skilled Gyncologist, the very large and increasing mortality from carcinoma and other malignant neoplasms would be materially lessened. Unquestionably if these cases were seen earlier, diagnosis made, and the proper medical and surgical treatment instituted. that the records of complete restorative of health, and eradication of disease, following operation for carcinoma would show an immense improvement over the present compilations. I wish to reiterate that these should be looked upon with suspicion, and studied with a great deal of care and caution. A complete examination should be urged in every case.

The second factor that is of importance at the menopause is the nervous condition of the patient. There are extremely few women who do not suffer, and show well-defined reflex and nervous phenomena in these waning years which constitute the so-called "*change of life.*" These phenomena of course vary very greatly indeed, both in extent and severity. In some individuals they are exceedingly well-marked, and very distressing. For a great many it may be only a slight deviation from the normal, or retrograde vitality—and thus often designated "*nervousness.*" This may be and indeed often is the mere starting point for grave future trouble, beginning slowly and quitely, suddenly bursting forth and overwhelming everything. Various functional disturbances are quite common accompaniments of this period of life especially those relating to circulation. The familiar "hot flashes," and the peculiar moistening of the entire body with perspiration, the irregularities of the hearts action, strange longings, nervous forebodings, and apparent hypochondriacal conjectures, illustrate this fact only too well. The methods and indications for treatment employed will vary of course with the predominating symptoms. Where there is faulty circulation as evinced by headaches, flushings, palpitation, coldness and lividity of extremities, the method of depletion by means of the glycerine tampon will be of unquestionable efficacy. The tranquillizing of the nervous system by sedatives, the regulation of the mode of life, combating mental depression, which is usually present by employment of appropriate exercises, and out-of-door-life, all of these if carefully, faithfully, and intelligently persisted in will do a great deal to lessen the morbidity and render the return to normal less precarious.

> I dangers dared; I hindrance scorned;
> I omens did defy,
> Whatever menaced, harassed, warned,
> I passed impetuous by.

Some Suggestions on Three Essential Points in the Treatment of Typhoid Fever.

By Herman Hawkins, M. D., Jackson, Tenn.

Medical literature indicates a universal agreement upon general principles in the treatment of Typhoid Fever but a great difference in practical application.

It is evident from the variations in type and tendency to complications of this malady, an exhaustive analysis of the treatment would require a long paper for its presentation; but the man who can control fever without harm to his patient, knows how best to nourish him, appreciates the value of elimination and obtains it without detriment to the vitality, is in possession of the three leading factors in the successful treatment of this disease. In comparison the rest is of minor inportance, tho not to be neglected.

I do not deny the possibility of Typhoid Fever beginning with a chill and high fever, but such an onset is atypical, indicating almost certainly some complication. It is an ordinary experience to be called to a case, with a previous history of general ill-feeling, headache, coated tongue, loose bowels, indigestion and some fever, suddenly reaching 103 or 104° F. and see the intensity of the symptoms alleviated by a thorough cleansing of the intestinal canal, leaving the tide like rise and fall of temperature progressively higher each day, so characteristic of Typhoid Fever. Again, it is not unusual to see the symptoms of the first week masked by acute malarial manifestations, which will yield to quinine, a plain case of Typhoid remaining. In conditions such as these with the diagnosis still uncertain the cautious use of antipyretic drugs may be permitted, but their administration should be strictly limited, for I would strongly empasize the general rule "that drugs to control temperature have no place in the treatment of Typhoid Fever." This brings us to the conclusion, that in the application of water we find the safest effectual means for controlling the fever, therefore a brief mention of some of the ways of using it for this purpose should be made. Like every therapeutic measure it must be adapted to the requirements of the case and condition of the patient. The Brandt bath is minutely described and ardently advocated in standard text books, but fortunately it is not practicable in

general practice, for as a routine measure it is capable of doing great damage. The wet pack kept cold by ice rubbed over it followed by brisk friction is a modified application of the principal after resorted to successfully, but sponging with cold water is the usual method employed. If thoroughly done with friction, satisfactory results generally follow, and the effect is enhanced if special attention is directed to the heavy muscles of the back, as emphasized by Hare. Benefit from tepid sponging is largely due to the friction and to the evaporation of the film left upon the surface. An analagous effect is from the modified pack, consisting of a folded sheet wrung out of cool water, extending from the ribs to the ankles and sprinkled or renewed every three hours. But little mention is found of sponging with *hot* water to reduce fever, yet it is often effectual and also pleasant to the patient. My first experience with the method was in the case of my own daughter. I called in a colleague and devoted my entire time to nursing, as her condition was alarming, with fever excessively and continuously high. We did not use the Brandt bath, but did use the cold pack with ice, ice coil and ice cap, sponging and various forms of application thoroughly with disappointing results. Remembering the fall in temperature I had so often noted in infants following the hot bath, I determined to try the experiment of sponging with hot water. I folded the gown up under the arms, placed a blanket next to the patient and with flannel cloths wrung out of water as hot as my hands could bear I sponged the body and lower limbs *under the blanket*, first wiping my hands on a towel after wringing the cloths, to prevent dripping. The reduction of temperature was prompt, and the effect upon the nervous system was equally satisfactory. I have since used hot sponging to reduce fever quite often, and always with confidence in the asthenic type, with tendency to coolness of fingers and at the *height of the fever*, and a disposition to cover up. When the temperature begins to *fall*, these patients will complain of being too warm and want to uncover. A sponge of flannel cloth is of distinct advantage because of the friction produced by this material when wet, a point worth remembering in any kind of sponging.

We will consider next the problem of feeding. The protracted wasting character of this disease demands a nutritious diet, at the same time we have a feeble digestion and faulty assimilation. We meet the same difficulty in a different condition, when we attempt to feed a delicate baby on an artificial food, and in both, are forced to the position of doing the best we can and not what we desire. I have often tried to follow the advice of several high authorities and feed my Typhoid Fever cases with semi-solids, and each time it has proved a mistake. I therefore agree with the usual teaching that a fluid diet is the correct, one, but I do not believe that sweet milk should be the principal food as advocated in our standard text-books. When diluted half with lime water, vichy, apollinaris or even plain water, it frequently serves; but I challenge the experience of every man to prove the assertion that as usually given sweet milk will not agree with 10 per cent. of his cases, and that the remainder will be seriously jeopardized by its continued feeding. Even when diluted as suggested, its digestibility cannot be affirmed without a trial, and admitting that it will agree, it must be remembered that the nutritive value of a given quantity of the mixture is lessened in proportion to the amount of dilution. Experience teaches me that sweet milk is a dangerous food in Typhoid Fever, and on the other hand that buttermilk is the safest, most dependable form of liquid food at our command. The more rigid the comparative tests the more positive will be the evidence of its practical superiority, as we could expect from theoretical deductions; for buttermilk contains all the nutritive elements of sweet milk except the fat. But the casein, which gives so much trouble in sweet milk feeding, is changed into a lactate in buttermilk, easily digested and assimilated. If we desire to retain the fat, compressed tablets of Lactic acid bacteria are on the market by the use of which buttermilk retaining all the cream, is at our command. It should be fed fresh, and the addition of a small amount of sodium chloride will render it more palatable to many and keep the system supplied with this necessary salt. My argument is not for an *exclusive* use of this or any other one food; but rather a plea for its selection as the principal one, to be alternated with expressed beef juice, etc., to relieve the monotomy of an unchanged diet.

Intestinal elimination is the last of the great triology left for present consideration. Men of long experience differ widely in opinion on this point. Personally. I am an advocate of free intestinal elimination in Typhoid Fever. The clinical evidence is so positive in favor of this position, I can but believe that those who oppose it have understood the term to mean "drastic purgation," which is not the case. Several stools a day do not necessarily indicate sufficient elimination, for frequently these may be from the lower bowel entirely, leaving the rest of the canal inactive. This stasis

of the foecal current results in fermentation, gaseous distention, increased stubbornness of fever, poor digestion, delirium and other symptoms of auto-intoxication. Locking the bowels for days at a time with opiates after intestinal hemorrhage, illustrated the harmful influence of poor elimination on the patient, for the rapid increase in severity of constitutional symptoms can but rarely be attributed to the amount of blood lost. I am convinced of the benefit obtained by the judicious use of intestinal antiseptics, but the most ardent advocate of this method of treatment will be disappointed in results if intestinal elimination is inadequate. While so important, the means used should be selected with judgment and effects carefully watched. The dose of drug given for this purpose must be in accord with the fact, that in this disease an ordinary laxative amount will act as a drastic purge. A teaspoonful of castor oil in the morning will ordinarily suffice to produce a satisfactory result. If first washed with boiling water it is not so repugnant to taste, and won't gripe. Salines sometimes act better, but whatever the selection of drug, the dose should be measured to obtain sufficient elimination only, and repeated just often enough to maintain it. Mention of elimination by skin and kidneys has been omitted because these are rarely neglected; besides no attempt has been made to discuss anyone of the divisions fully. Really the paper is in the nature of a special plea for hot sponging to reduce fever when indicated, buttermilk as a specially suitable form of food and the great importance of intestinal elimination. Every case of Typhoid Fever has its peculiarities to which treatment must be adapted, just as in other diseases, for routine in medicine means the end of improvement. I therefore urge no hard and fast rules, but rather offer the teaching of personal experience with the hope that others may find some serviceable suggestion which will be of real value in the treatment of this serious malady.

Trunecek's Serum In a Case of Arterio-Sclerosis.*

By C. T. St. Clair, M. D., Tazewell, Va.

On November 15th, 1906, I was called to see J. R. L., a man of fifty-two years of age, for relief from a distressing tightness in the chest. Past history, practically negative, so far as illness was concerned. He had always been a man of good habits; a hard working farmer for many years; afterwards, a contractor, and had done a great deal of heavy lifting and carrying, and had been exposed much in bad weather. He was a man of good physique, and well nourished. He had felt a peculiar tightness in the chest for more than a year, which so interferred with breathing that he had been compelled to set up a good part of each night for the past few months. He found himself out of breath after slight exertion, and when I first saw him. he expressed it as, "the breath is just beyond my reach," or, "I seem to be breathing under heavy wet blankets." His pulse was hard and full, tension high, arteries sclerosed. No valvular organic heart lesion, but hypertrophy; urine, negative, except for slight albumin.

Diagnosis :—Arterio-sclerosis.

I gave him Potassium Iodide and Nitroglycerine for weeks; with little or no relief. The tension in the arteries became alarmingly high, and could be controlled only by vene section. The Nitroglycerine and Iodide of Potash, together with milk diet and rest were continued for several weeks, with but little relief. It became impossible for him to lie down at night without having had a hypodermic of morphine; however, the dose of this drug was kept below one grain until late in the disease.

On January 19th, 1907, I gave him 1 c. c. of Trunecek's serum, hypodermatically. The following day, I gave 2 c. c., and 3 c. c. the next day; thus increasing, until, on January 23rd, he had 5 c. c. of the serum. I then dropped back to 3½ c. c. two days later, then 5 c. c. again the next day, then 3 c. c. two days afterwards; and was for a long time thereafter able to control the symptoms with 1½ to 2 c. c., given at intervals of several days.

The effect of this treatment was nothing short of marvelous. The relief from labored breathing, and the quiet sleep following were perfect. The patient gained strength, weight and vigor, and was able to return to work. The serum was continued during the rest of the month of January, through February, and to the 15th of March, however, his old symptoms of dyspnoea returned, and gradually grew worse. He could not be relieved by the serum, or any of the usual remedies for this ailment. Dyspnoea became more and more distressing, sleep still more disturbed, and in the meantime, the arteries were more selerosed; Cheyne-Stoke's breathing the most pronounced I ever witnessed. There were convulsions from superimposed uremia, and finally the dilated heart failed, and the patient died about three weeks later.

My sole object in reporting this case is that I am aware that is a new remedy, so far as most of us are concerned, and I am anxious to know if any present have used it in like affections, and to know their ex-

*Read before the Va. Med. Soc. Chase City, Va.

perience with it, and also to call attention to a remedy, which in my hands, was a marvel in relieving the distressing symptoms of this malady. This patient told me repeatedly that he could feel the good effects of the treatment in less than five minutes after its administration, and from what I have been able to learn of it, I believe, had it been used earlier in the disease, probably life would have been much prolonged. I am now sure that the failure of the remedy to continue to relieve, was because the heart dilated to such an extent that it was impossible for it to continue its function.

The relief in this case could not have been psychicalal, for, as stated before, the patient could not possibly lie down, and sleep was impossible, without the use of morphine hypodermically, and during the time he was taking the Trunecek's serum he did not have a single dose of the opiate.

The serum, so-called, is the equivalent of blood plasma, ten times concentrated, and its formula is :

Sodium Sulphate	.	0.44
Sodium Chloride	.	4.92
Sodium Phosphate	.	0.15
Sodium Carbonate	.	0.21
Potassium Sulphate	.	0.40
Aquae Dist. q. s. ad.	.	100.00

As you would naturally suppose, the administration of this mixture under the skin was usually attended with a great deal of pain, which subsided, however, in a few minutes.

I have been able to find but very limited literature upon this subject, and I shall gladly hear anything concerning its use.

Importance and Treatment of Myalgia.

Peritz emphasizes the importance of differentiating between neuralgia and myalgia, especially on account of the liability of the latter to be mistaken for an affection of some vital organ, and directs attention to the efficacy of proper treatment. The painful points in neuralgia generally correspond to the points at which the nerve emerges from the bone or comes toward the surface. In myalgia, the pain is usually located in the muscle itself, and is always distributed over a much larger area than in neuralgia, while the tenderness persists during the intervals between the attacks of pain. There is also generally a zone of hyperalgesia above the affected muscles, but it does not parallel the course of the nerves. The myalgia generally develops by preference where the muscle is thinnest and most exposed. In the writer's illustrations the myalgic points are seen to correspond to the points where the muscle blends into its tendon, and they are generally at the edge of the muscle.

Myalgia has been found by the author to be rebellious to electricity, massage, and the salicylates, but has always yielded promptly to injections of a 0.2 per cent. physiologic salt solution, directly into the muscle. Several injections are made at different points over the painful area, and repeated later if necessary. In one instance, an elderly patient was suddenly attacked with pain in the precordial region, which recurred spasmodically several times a day and radiated into the arm. Nothing abnormal could be found in the heart action except a rhythmic dropping of every fourth beat. The writer was able to determine the existence of myalgia of the upper part of the free margin of the pectoralis major. Injection of the salt solution cured the myalgia and the nervous symptoms, including the cardiac arryhthmia, also varnished.

The author thinks it probable that the form of angina pectoris in which benefit is obtained from massage is probably myalgia. In the epigastric region it is liable to be mistaken for a stomach trouble. The affected part of the rectus muscle may exert pressure on the stomach, especially when that organ is distended after a meal, producing symptoms simulating "nervous dyspepsia." The reflex symptoms of myalgia may include headache and vertigo and pains in the compensating sound muscles, as in myalgia of the gluteal muscles, in which the pains are generally referred to the outside and calf of the leg.—Berliner klinische Wochenschrift.

Why Must Appendix be Removed in Gynecological Operations?

Pankow (Munch. med. Woch.,) discusses the necessity of a routine removal of the appendix whenever the abdomen is opened for a gynecological operation. The author has made systematic histological examination of the appendices removed from patients operated upon for gynecological lesions in 150 cases. He finds that the appendix is affected more often in the female than in the male, and that lesions occur in 60 per cent. of gynecological cases. Appendicitis plays a much wider role in gynecological cases than has been supposed. It is frequently the cause of closure of the tube and resulting sterility. Many cases of pain in the right side referred to the ovary result from appendicitis. The inflammation of the appendix is frequently unobserved by the patient, yet it leaves its marks behind in adhesions, and chronic inflammatory conditions. Hence the author believes that when we have opened the abdomen for another operation we should at the same time remove the appendix.

Charlotte Medical Journal

EDWARD C. REGISTER, M. D., Editor.

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THE TRI-STATE MEDICAL ASSOCIATION OF THE CAROLINAS AND VIRGINIA.

The tenth annual meeting of this progressive medical association will be held at Charlotte, N. C., February 18-19, 1908 under the Presidency of Dr. Stuart McGuire, of Richmond, Va.; Dr. J. Howell Way, Waynesville, N. C., is Sec'y-Treas. This Association comprises in its membership many of the leaders of the profession in the three states, and is assured of a cordial welcome to Charlotte. It was in this city some ten years ago the first regular annual session was held.

Both President and Secretary are actively at work to secure an elaborate program and a full attendance, and a large number of excellent papers from leaders of the profession are expected.

The subject of the Annual Debate is "Epilepsy" and the personnel of the "leaders of Debate," Drs. J. Allison Hodges, Richmond, Va.; J. P. Munroe, Davidson, N. C.; and Dr. T. P. Whaley, Charleston, S. C., assures an instructive discussion of this important subject.

Headquarters will be at the Selwyn Hotel. The Local Committee of Arrangements are: Drs. E. C. Register, Jno. R. Irwin, R. L. Gibbon, all of Charlotte, N. C.

A cordial invitation is extended to all members of the State Societies to be present, membership in the Tri-State being limited to members in good standing in their respective State Societies.

Gentlemen contributing papers who have not done so, should promptly send their titles to the Secretary.

THE CAMPAIGN AGAINST TUBERCULOSIS.

Pennsylvania has set aside the sum of $1,000,000 for the purpose of building and maintaining a sanatorium for the care of indigent consumptives. It is said that the State owns a forest reserve containing about 50,000 acres on which the institution will be established.

Other States are taking steps in this direction also; some have already done so. Our own State of North Carolina recently appropriated $15.000 for this purpose and the land has already been purchased in the pine regions of the East. In addition $5,000 annually for maintainance was set aside. Soon we will have at least a small sanatorium where those consumptives unable to procure proper treatment may be sent, segregated and cared for. While the sum allotted to this institution is small, it nevertheless means a start and the good it may accomplish is beyond calculation.

It is something of which North Carolina should feel proud that we were among the first to take active measures toward the eradication of tuberculosis. The public wellfare, charity, and humanity are considerations which prompt citizens to prosecute a work of this kind. As a matter of opinion, we attribute this awakening and the active measures taken by Legislatures of the various states to the thorough dissemination of knowledge concerning the disease among the laity. Teach people, make them understand and they will not disregard.

The fact that tuberculosis is a preventable disease and the active warfare now being originated in every quarter against it cannot but arouse the belief that the day is not for distant when its ravages will be under man's control.

Elsewhere in this issue is contained an announcement concerning the great world conference on tuberculosis to be held in Washington, D. C., in September, 1908. The world has never witnessed such a spectacle as this, and we believe that it is not a utopian dream when the prophesy is uttered that the reign of the great white Death will ultimately come to an end.

NARATH'S MODIFICATION OF TALMA'S OPERATION.

Attention has been called most interestingly by Corson, of Savannah, to a modification of the classic operation for liver cirrhosis advocated by Talma. The operation is very simple, can be done under local anesthesia and is followed by remarkably good results. According to Dr. Corson the peritoneum is opened through a small incision in the mid-line just below the ensiform cartilage, a bunch of omentum is picked up, drawn out, and tucked under the skin, and stitched in place with a few catgut sutures. The incision in the abdomen is carefully sewed in layers around the base of the omental mass, sufficient to close the abdomen, yet avoiding any constriction of the omental tissue itself. The operator, as he sees fit, may do a one-sided operation, or he may pick up a second bunch of the omentum and suture it in on the opposite side, should he think it necessary to increase the area of transplantation. Narath claims for this method that results are very quickly apparent: the subcutaneous veins become prominent in a week, and the relief to the obstructed portal cir-

culation is seen at once.

The principle involved in this and the original Talma operation is identical. An effort is made to increase the collateral circulation and thus provide a route through new vessels by which the portal blood can reach the heart. Talma united the upper surface of the liver to the opposing surface of the diaphragm, but this method has not proved so efficient as uniting the omentum to the anterior abdominal wall, either by stitching it to the peritoneum, or preferably by its subcutaneous insertion as done by Narath. By the latter procedure the portal vessels of the omentum are brought into direct contact with the tissues in which the superficial abdominal veins lie, and a more direct collateral circulation is thus established. The evident enlargement of the superficial veins of the abdomen within a week shows how quickly this occurs.

The only inconvenience resulting from Narath's operation is the epiplocele and possibly hernia which may develop. As compared with Talma's method—the mortality of which is 10 per cent.—the mortality is little or nothing. This with its great simplicity should recommend it. Doubtless more will be heard of the method.

The Bickett commission appointed by the last legislature to look after the establisment of the hospital for epileptics met in Raleigh Jan. 2, '08. It will be remembered that this commission some time since purchased an extensive tract of land known as the Grimes' Land, containing 1250 acres, near Raleigh, on which to establish such an institution. Since that time however it has been decided not to carry out these plans because of the objections on the part of the municipal authorities of Raleigh, that the water-shed from which the city gets its water supply will be damaged. Just what disposition is being made of the matter of establishing this hospital the profession at large would be pleased to know more particularly. It means a great deal to the whole State that such an institution is assured and we are anxious to see its consummation in the near future.

We are informed through the lay press that it has been decided to establish a colony of one hundred at the Central Insane Hospital, Raleigh. Also a new nurses' building is to be added to the present buildings at Morganton, and a small addition to the hospital for negroes at Goldsboro. Whether these improvements are to be carried out according to the plan laid down in the Bickett measure we do not know.

INFLUENZA.

Charlotte and surrounding communities are in the throes of a disorder commonly and familiarly known as "Grip." It has been estimated that there were 2,500 cases in the city at one time. Every family, it is safe to say, has its sufferers and while the estimated number may be an exaggeration still it is indicative of the prevalence of the disease. There is no way by which accurate figures can be obtained for very obvious reasons. We of course are but suffering with the rest of the country. For weeks past accounts of its presence in various cities and towns have warned us of its swift approach. And now it is upon us with a hurricane-like explosion.

As to the prevailing type we are unprepared to make any definite statements, yet there are some severe cases reported with an occasional case of pnuemonia as a complication.

HEALTH OFFICER FOR SOUTH CAROLINA

On Feb. 5, '08, the House of Representatives of the South Carolina Legislature, now in session, passed by a large majority a bill providing for the appointment of a State Health officer at a salary of $3,000 and with large powers. The passage of this measure is a decided movement in the direction of better sanitation and the prophylaxis of contagious and infectious diseases.

The bill provides for the appointment of the State health officer, who must be a practicing physician, graduate from a reputable college and experienced in public sanitary matters, by the executive committee of the State health board, whose secretary he shall be. He "shall have power to declare, when the facts justify it, any place to be infected," and take all necessary steps to prevent the spread of disease from the infected locality.

Section 4 provides that "The State board of health shall have power through its health officer to impose upon all railroads and navigation companies, vessels or cars, such restrictions and regulations as to inspections or sanitary rules as in their judgment may be necessary to protect the health of the people of the State."

It is said that the local boards of health have proved ineffective in South Carolina in important instances on account of local men of influence getting in the way.

A NEW MEDICAL FIRM FOR CHARLOTTE

Drs. E. R. Russell and J. P. Matheson have formed a partnership for the practice on diseases of the eye, ear, nose and throat. Their office was opened Feb. 6, '08, at the

place occupied by Dr. Russell during the past several years.

After several months holiday, Dr. Russell returns to his work with renewed energy and strength. He is looking quite fit and is his same old genial self. Dr. Russell is well known throughout North Carolina and adjacent States, having engaged in the practice of his specialty for a number of years during which time he has established an enviable reputation. We are most heartily glad to welcome him and rejoice in his restoration of health and strength.

Dr. Matheson has practiced medicine in Charlotte for several years. At one time he was resident physician to the Presbyterian Hospital, later he engaged in general practice and succeeded in building up a lucrative practice. Since September '07, he has been doing special work in the branches to which he, with Dr. Russell, will devote his attention in the future. For several months he has pursued his studies in the clinics of Northern cities. Consequently he begins his special work splendidly equipped.

Both these gentlemen are active, energetic, scientific physicians. The combination makes an unusually strong firm. We congratulate them and add our good wishes for their success.

SOUTHERN MEDICAL COLLEGE ASSOCIATION.

At the annual meeting of the Southern Medical College Association held in New Orleans recently, three medical schools were added to the membership, viz.: the Atlanta College of Physicians and Surgeons, the Medical Department of the University of Kansas, and the College of Physicians and Surgeons of Little Rock, Ark. Officers for the ensuing year were elected as follows: President, Dr. Christopher Tompkins, dean of the Medical College of Virginia; vice-president, Dr. W. S. Rogers, dean of the Memphis Hospital and Medical College; secretary and treasurer, Dr. L. C. Morris, of the Birmingham Medical College; chairman of the executive committee, Dr. J. S. Cain, of Sewanee, Tenn.

THE BACTERIOLOGY OF THE BLOOD IN TYPHOID FEVER.

In the "American Jounal of the Medical Sciences" (June, 1909) we find an article by Drs. Warren Coleman and B. H. Buxton on the presence of the *Bacillus Typhosus* in the blood of cases of typhoid fever. The number of cases reported to date in which bacteriological examinations of the blood of typhoid and suspected cases have been made is 1602. Of this number 75 per cent. gave a positive result. These results compel the conclusion that the typhoid bacillus is present in the blood in every case of typhoid fever and that failure to recover it is due to error of technique. The diminishing percentages in the latter weeks of the disease do not indicate that the bacillus has disappeared from the blood in the negative cases, but point rather to diminishing numbers of bacilli, whose presence imperfect methods have failed to reveal. All investigators except Conradi are agreed that the bacillus disappears from the blood at or about the time the temperature falls to normal. Conradi claims that the bacillemia persists into convalescence.

If future observations confirm the conclusion that the typhoid bacillus is present in the blood of every case of typhoid fever throughout its course, the current conception of the patho-genesis of the disease should be modified. Typhoid fever can no longer be regarded simply as an infection of the body with typhoid and related bacilli. The typhoid bacillus may be present in the body and actively growing, yet the patient not have typhoid fever. It has been shown, for example, that the bacillus may live and multiply in the intestine of healthy persons. The patient is infested and a menace to others, but is not infected. The number of cases of biliary infection with the typhoid bacillus, without a previous or existent typhoid fever, is fairly large and is increasing. In the post-typhoid bone and other inflammatory lesions the lodgment and growth of the bacillus do not produce the characteristic symptoms of typhoid fever, in spite of the fact that large amounts of endotoxin should be liberated and absorbed when the abscesses are multiple.

The very term used to describe these conditions, "post-typhoid," indicates that the typhoid fever *per se* has subsided. The temperature curve conforms to the so-called septic type. Therefore it seems that to produce typhoid fever the bacillus must not only be present in the body and growing, but that it should grow in a situation whence it has free access to the blood. In typhoid fever the bacillus first finds its way from the alimentary tract to the lymphopoietic system, including the spleen, where it develops chiefly and from which it invades the blood stream. This observation, together with the fact that the bacillema persists throughout the disease, suggests the following view of the patho-genesis of typhoid fever. That the disease is caused by the destruction of vast numbers of baccilli in the blood, with the liberation of their endotoxins, and the consequent reaction on the part of the host. When the endotoxins are liberated elsewhere in the body, e. g. in abscesses, the symptoma-

tology is not that of typhoid fever.

The analysis of the cases in the various weeks of the disease suggests the following relation of the bacillemia to the course of typhoid fever. In the earlier stages the bacillus invades the blood in greatest numbers. Later, as the disease is approaching a favorable termination, the diminution in the number of bacilli in the blood is simply an index of less active development in the lymphatics and spleen. If the disease in any case pursues a long-duration course, that beyond the usual three weeks, the bacillus may be recovered from the blood so long as the temperature persists. While the bacilli disappear from the blood at or just before defervescence, it is improbable that all the bacilli in the body have been destroyed. Otherwise, relapses and post-typhoid inflammatory lessons would be impossible.

The bacillemia apparently bears no relation to the type or severity of the disease except in so far as regards numbers of bacilli. The bacillus is found in the blood equally, but not with the same persistence, in the mild as in the severe cases, and in the cases of short as well as long duration. The importance of the definite establishment of the nature of these short duration cases can scarcely be overestimated from the epidemiological standpoint. The serum reaction has done much to clear up their diagnosis, but the final proof has remained for the bacteriological examination of the blood.

The blood has been examined bacteriologically by various investigators in thirty-three relapses. The typhoid bacillus has been recovered in 90 per cent. of the cases. Reinvasion of the blood with destruction of the bacilli probably cause the symptoms of a relapse, but the underlying conditions which inaugurate active development of the bacilli after their growth has once been brought under control are unknown.

In conclusion it may be stated: (1) That the typhoid bacillus is present in the blood of every case of typhoid fever throughout its course. (2) That the bacillemia in typhoid fever does not constitute a true septicemia, but it represents an overflow of bacilli from the lymphopoietic organs. (3) That the clinical picture of typhoid fever results only from infection of the lymphopoietic organs by the typhoid bacillus, with invasion of the blood stream and destruction there of vast numbers of bacilli. (4) That the endotoxins of the typhoid bacillus are not cumulative in action and convalescence from the typhoid fever *per se* is established within a few days after the disappearance of the bacilli from the blood.

DR. LAWRENCE EDWARD HOLMES.

Dr. Lawrence Edward Holmes, who for several years past had been resident physician at the Clarence Baker Memorial Hospital, Biltmore, near Asheville, N. C., died Feb. 5, '08, in Biltmore hospital, after six days illness with pneumonia, aged 35 years.

Dr. Holmes was born in England. He graduated from the medical school of Pennsylvania University in 1897, coming to Asheville in 1901. He obtained license in North Carolina in 1901 and since that time has been in active practice at Biltmore. He was a member of the Buncombe county and of the North Carolina State Medical Societies. He was unmarried and is survived by a father, two sisters and three brothers.

With the December, 1907, issue the Fort Wayne Medical Journal—Magazine ceased to exist, it having merged with the Journal of the Indiana State Medical Association. The first number of the newly combined Journals appeared in January. The *Journal—Magazine* had completed its twenty-eighth volume. For over thirty years a journal had been published at Fort Wayne.

Review of Southern Medical Literature

Texas Medical Journal, Dec., 1907.

Atrophic Cirrhosis of the Liver.—Dr. J. V. Shoemaker regards the cause of the cirrhosis as undoutedly due to alcoholism, which is really the most frequent cause in all forms of cirrhosis of the liver and especially in the atrophic form.—The more alcohol contained in the beverage used the more apt and the sooner is the disease developed. Alcoolic drinks taken before meals on an empty stomach has its influence in producing the disease more rapidly, the alcohol being absorbed more rapidly in an empty stomach than when the stomach is partly filled with food. Among the other predisposing causes are the chronic disease which favor constructive tissue formation such as syphalis gout tuberculosis and carcinoma age and the male sex have their influence. The disease seldom occurs before middle life. Treatment: This patient owing to the large amount of fluid in his abdominal cavity is obliged to remain in bed. His diet consists of milk and broths, no solid food or anything that tends to irrite the gastro-intestinal canal should be given this patient. To keep his skin active he receives frequent warm baths followed by alcohol rub. He is inclined to be constipated hence we first gave him a grain and a half of calomel in broken doses, followed by a saline purge.

Cathasis, diuresis and diaphoresis are all indicated hence Niemyer's Pill was prescribed which contains Powd Scilla Massa Hydrargyri and Pulv. Digitalis each one grain. One pill to be given every four hours. It has decreased the ascitic condition somewhat, but should medicinal agents fail to reduce the ascites materially paracentesis abdomenis would be resorted to draw off the fluid after all necessary aseptic precautions are taken, the badder is emptied, the patient is placed in a sitting posture and trocar is quickly thrust through the already anestheized area over the linea alba about three inches above the pubis. The trocar should not be inserted more than one inch. After the proper amount of fluid is drawn off gradually, the wound is covered over with a small thin plaget of cotton saturated with collodion. Pressure may be made over the abdomen by a proper binder, but it has little or no value.

Nashville Journal of Medicine and Sugery, Dec., 1907.

Secret Commissions.—Dr. E. S. McRee says that San Franscisco suffered for the sin of commissions on prescriptions, as well as many others, at the great earthquake. The pharmaceutical press contained a statement of the bad conditions there, which, thinking them over drawn, was sent to one of the prominent physicians in San Francisco with a query as to the truth. His reply was that there was too much truth in it. He said that the doctors had in mind to fight the custom some day, but were too busy now with the patent medicine fraud to take up further conflict. The statement was to the effect that some years ago a drug store was started in San Francisco, but, unfortunately lost money from the beginning. After a time the proprietor packed up his stock moved to New York city and now has one of the most successful drug stores in the Eastern metropolis. Why was the drug store such a success in New York after proving such a failure in San Francisco? Here is the secret of the incident mentioned. The pharmacist whose business venture proved so successful was compelled to move from San Francisco because he refused to pay tribute to the physicians for the privilege of filling their prescriptions. According to authority on the matter there was only one drug store in San Francisco which does not give a percentage to some physician for prescriptions filled. Tribute is not only laid upon the pharmacist, but we are told that even the trained nurse must turn over to the physician the half of her first week's salary in each case in order to have her name placed on his list of eligibles. Even a divy was expected from the undertaker it is said if medical services proved unavailing. Comment on the state of morals in the medical and pharmaceutical profession of San Francisco is entirely unnecessary. There is no doubt but that any contract between physician and druggist or other tradespeople whereby a commission is given or asked is illegal and against public policy. If a physician sends all his prescriptions to a neighboring drug store and gets 15, 20 or 25 per cent. on them, he will in all probability prescribe more often than is necessary in greater dilutions and in doses of larger bulk.

The Mobile Medical and Surgical Journal, November, 1907.

The Stomach Tube.—Dr. A. T. French believe the great advancement we have made in the knowledge of gastric diseases is due to the introduction of the stomach tube and to modern technique however that which may be indispensable from a diagnostic standpoint may become a dangerous thing when used as routine practice. The stomach tube is not a cure all, nor can it be used without fear of harmful results in every case. It use is contra-indicated in the following diseases; injuries to the throat and oesophagus; heart disease; advanced cases of tuberculosis; cancer of the stomach; and ulcer of the stomach. It should be used with extreme caution whereever there is a history of vomiting of blood. The stomach tube has been most beneficial to the author in the following cases. In the early stomach symtoms of tuberculosis cases the plain hot water wash was used daily at bed-time and gives excellent result. (1) In acute gastritis in adults and children. (2) In catarrhal gastritis the following case is reported: J. B. D. suffered for two years with vomiting and food regurgitation, mucous vomiting and passed from the bowels in large quantities, with diorrhoea and great weakness. Could eat but little food without fermenting, souring prodncing the rotten egg belch and diorrhoea. He was greatly reduced in flesh when washing of the stomach was begun. After using the tube from once to twice a week for a year he was entirely relieved and now three years after he can eat anything and do any man's work. He has not used the tube in the past three years.

(3) Chronic gastritis, due to the abuse of alcohol the stomach of the old toper is greatly benefited and helped by washing with hot water with a teaspoonful bicarbonate of soda. (4) Gastric neurosis (5) ulcers of the stomach; the use of calcium chloride in the wash water acts well. (6) Hyperchlorhydria: author finds silver ni-

trate solution, one to one thousand gives excellent results. (7) In gastric fermentation one ounce of salicylic acid dissolved in four ounces of alcohol and one to two teaspoonfuls of this to each quart of hot water gives great relief.

The American Practioner and News, Dec. 1907.

Diagnosis and Treatment of Tuberculosis of the Kidney.—Dr. J. M. Morris says that tuberculosis of the genito-urinary tract almost universily begins at one of four points. The kidney prostate epididymis or tubes. Tuberculosis of the bladder is seldom primary but is usually secondary to tuberculosis of the kidney prostrate or epedidymis. It was formerly believed that tuberculosis of the prostrate was very rare or did not occur at all but later research has proved the contrary to be true and that it is often affected primarily. So also of the epididymis and tubes both being frequenly the seat of primary tuberculosis. Tuberculosis of the kidney occurs at all ages but is most common between the ages of twenty and forty. Statistics show that women are oftener afflicted than men. The symptoms of renal tuberculosis vary greatly in different cases. One of the most common symptoms is frequent micturetion—this frequently not being very marked as a rule but the patient will notice a somewhat frequent desire to urinate. Pus and blood in the urine are symptoms of great importance. Blood does not occur in all cases. Most frequently it occurs in very small quantities, frequently being microscopic. The urine is frequently cloudy, pus occurs in varying amounts and when extending over a long period of time should always excite suspicion of the disease. In well marked cases, as in tuberculosis elsewhere in the body, grave symptoms occur, anrima, loss of flesh and strength and a general debilitated condition. For the diagnosis of renal tuberculosis a knowledge of three things are essential, namely: The use of the cystoscope, catheterization of the ureters, microscopic and chemical analysis of the urine. The needs for the use of the cystoscope are first, to determine whether or not the disease has extended into the bladder, in which event an operation for the removal of the kidney would be doubtful.—Also careful inspection of the mouth of the ureters is necessary for in tuberculosis of the kidney there are small shallow ulcers present around the opening resembling foot prints in the snow. Catheterization of the ureters is of the utmost importance in this disease without it a positive diagnosis cannot be made for no man can judge in any other way whether the pus and blood comes from one kidney or both. As to the treatment of tuberculosis of the kidney, the removal of the kidney is the only thing to be done when the disease is confined to one kidney and no operation known to the surgeon offers more hope to the patient than this one.

Atlanta Journal-Record of Medicine, Dec., 1907.

Cholecystitis with Special Reference to Etiology and Diagnosis.—Dr. T. E. Potter after reviewing the subject of etiology of cholecystitis concludes: That the most probable cause of infection of the gall bladder is not through the intestinal walls, nor through the hepatic tissue, nor through the duodenum through the hepatic ducts, but through the blood of the portal system; and from this source one has the catarrhal and parenchymatous inflamations with occasional empyema, but sometimes malignancy caused by the presence of stones. The symptoms are not all present in any one case because different forms and stages give different symptoms. Among the most prominent symptoms is tenderness immediately under the ninth intercostal cartilage. This in the author's judgement, is as valuable a symptom as tenderness in the region of McBurney's point of appendicitis. The tenderness may extend down for 2 or 3 inches. To elicit it, press the fingers up under the ribs and require the patient to take a deep inspiration. He will complain of pain and in many instances if the fingers are firmly held, the inspiration is suddenly stopped, as though there had been a sudden attack of pleurisy. There may be some swelling or fulness over the region of the gall bladder, and percussion gives a general sense of uneasiness. By placing the patient on his hands and knees, the gall bladder may occasionally be felt to drop forward and it can be outlined especially if it contains stones. The stomach is usually deranged and the patient not only suffers from indigestion, but severe gastralgia, that can only be relieved by emesis. When these symptoms are present the author at once suspects chol escystitis and stones. There may be slight jaundice, frequently none. There may be chills and fever sometimes, two rigors a day attended with high fever. These chills may not return for several days when they occur as before and are often diagnosed as chronic malaria. Hepatic colic will aid in forcing a conclusion as to the presence of stones. Still there may be some doubt until they are found in the discharges. These stones are usually found after an attack of colic, and if they have facets upon them, they show that they have had companions to rub against. Occasionally

the gall bladder becomes very much distended and will reach as low as Pouparts ligament It may be miataken for an appendicular abscess and only an exploratory incision or asperation enables one to determine which is present.

The Mobile Medical and Surgical Journal, Dec. 1907.

Modern Surgical Treatmeut of Exopthalmic Goitre.--Dr. A. Heineck gives the following operative points. 1. It is well to prepare patients for some time, to observe them and to better estimate their ability to withstand operation. Before operation all cases should be examined with the laryngeal mirror to determine whether one or both larygeals are compressed by the thyroid growth. 2. Use the inverted Trendelberg position. But the neck in that position which makes the goitre most accessible and which interfers least with respiration. A hard round pillow is put under the neck. 3. Kocher's transverse convex incision allows of a complete exposure of both lobes. From an ultimate cosmetic standpoint, it is the best as the usual neckwear will hide the scar. If it is necessary to make a section of the sterno-hyoid and the sterno-thyroid the Mayos advise that this be high, so as to preserve the nerve supply to these structures. The savings of the posterior capsule protects, in the opinion of the Mayos, against many of the dangers of partial thyroidectomy. The saving of the posterior capsule among other things lessens very much the liability to total parathyroidectomy. According to Regale after parathyroidectomy, such profound disturbances of metabulism occur that all efforts on the part of the organism to repair are absolutely ineffectual. After completion of operation, the cutanous wound should be surtured accurately. Drain through an openiug made below this wound. 4. Hemostasis must be perfect. Do not depend on temporary compression to arrest bleeding. It is deceptive when possible tie the blood vessels. It is preferrable to leaving clamps in position. Clamps interfer with healing of the wound.

Recovery from all symptoms is neither immediate or simultaneous. The first symptom to subside is the tachycardia. The tremor and the nervous and psychical symptoms also disappear quickly. The total disappearance of menstrual disturbances is of good prognostic omen. It takes months for the entire beneficence of the operation to become manifest. The exopthalmos is the last symptom to disappear. The longer the period of observation after the operation the better appear the results.

The Southern Practitioner, December, 1907

Hematuria.--Dr. P. Bromberg says that in addition to special features, symptoms referable to the organ involed are usually present; and being unable to improve upon, he quotes the statement of Prof. Ralfe: "(1) Acute nephritis smoky to dark brown urine, persistant for some days, with granular and bloody casts and excess of albumen (2) Renal calculus: often deep red from excess of blood, increased by movement and passing off rapidly if the patient be kept in bed, so that only a few of blood corpuscles can be seen in the urine; generally accompanied by or immediately following a severe attack of colic; retraction of testicle on side affected. (3) Vesical calculus: hemorrhage generally follows undue movement, especially jolting; badder symptoms prominent; detection of stone by sound. (4) Cancer of kidney: hematuria very abundant with large coagula, and repeated at irregular intervals; generally tumor in loin. (5) Cancer of bladder: frequent and profuse hemorrhage; cancer cells in urine (?); pain referable to bladder, tumor may be discovered with sound. (6) Morbid conditions of the blood; hemorrhage often profuse, but rarely attended with formation of clots; general constitutional symptoms manifest. (7) Intermittent hematuria: the blood passes at irregular intervals, and is generally associated with a considerable quantity of albumen and a definite rise of temperature, history of chill. Local symptoms may however be entirely absent and we will find our liabilities often taxed to their utmost to find discoverable cause for rather profuse bleeding. Cases like the one reported in this paper a diagnosis of of idiopathetic hermatura was made with the possibly renal calculus or purpura.— This case refused operation but under the influence of gelatin and calcium made a complete recovery.

Maryland Medical Journal, December, 1907.

Report of the Maryland State Sanitarium --By Dr. H. W. Buckler.

New Orleans Medical and Surgical Journal Dec., 1907.

A New Method of Enucleation of Eyeball Under Local Anesthesia.—Dr. E. H. Robin has since 1905 been experimenting with a new method of local anesthesia in enucleation of the eyeball. It has been used with success in thirty four cases both in private and hospital practice. The mixture used, in all cases, consists of ten drops of a 4 percent. solution of cocaine, ten drops of adrenalin chloride (1.1,000) and twenty drops of normal salt solution, mak-

ing forty drops containing altogether 2-5 of a grain of cocaine. With a hypodermic syringe, ten drops of this mixture are injected along each rectus muscle, deeply behind the equator of the eye after a five minutes wait the operation is performed in the usual way. Observations on the first twenty cases showed that the method was thoroughly practicable, though not entirely devoid of pain. Those who complained of pain always referred it to the last stage of the operation, that of cutting the optic and ciliary nerves; the stages of dividing the conjunctura and tendons being practically free from pain. As this seemed to suggest the use of a larger amount of the mixture ten more drops of the mixture were injected deeply around the optic nerve, about a minute before severing it. This fulfilled all expectations. A few of the advantages of the method of local over general anesthesia are: the patient is conscious and by that fact stands warded against the awful error of removing the wrong eye, an accident of which several instances have been reported within recent years. The amount of cocaine used (2-5 to 1-2 of a grain) is almost insignificant and certainly is comparably safer to life than any form of general anesthesia. Finally, the patient seems to prefer it for since 1905 they have had no trouble in inducing all patients upon whom operation had to be done to select this method,

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The Southern Clinic, December, 1907.

Physics, Physiology and Therapy of Faradism.—By Dr. H. C. Bennett.

Virginia Medical Semi-Monthly, Dec. 13th, 1907.

Analysis of the Last Five Hundred Cases of Appendicitis Operated on at St. Luke's Hospital.—Dr. Stuart McGuire under the section of Appendicitis with diffuse peritinitis or cases where there is perforation of the appendix and free pus in the general peritoneal cavity, says that this type until recently has been the terror of the surgeon. The old method of opening the abdomen, removing the appendix, washing out the peritoneal cavity with or without evisceration, and making counter incisions for multiple drainage was followed by a mortality of 80 per cent. There has been to the author's mind no recent advance in surgery so brilliant in theory or so practical in results as the new technique of treating diffuse suppurative peritonitis. In these cases a short incision should be made over the appendix, and the diseased organ removed; if it is readily accessible, a second incision not necessarily more than an inch in length, should be made in the mid-line above the pubis. A rubber tube one-half inch in diameter, with openings on the side, should be introduced through the superpubic opening and carried to the bottom of the pelvis. No irragation of the abdomen should be practiced, no effort even made to spongue out the pus, but a voluminous dressing should be applied and the patient quickly put to bed in an exaggerated and Fowler's position. Saline solution should be slowly and continously given by rectum, the stomach washed out if vomiting is persistent, and the heart and kidneys stimulated by the hypodermic use of sulphate of spartine in large doses. The difficulty often experienced is to keep the patient in the proper position in bed so that fluids in the abdominal cavity will be carried by gravity to the pelvis. Since the adoption of the new method two years ago the author has had but one death in eighteen cases of diffuse peritonitis. In other words the change of technique has reduced the mortality from over 80 per cent. to 55 per cent.

Gaillard's Southern Medicine, Dec., 1907.

Instructions to Those Having Gonorrhea.—By Dr. V. C. Pedersen.

Virginia Medical Semi-Monthly, Dec. 27uh, 1907.

Principles of Surgery Lecture XLI Tubercular Abscess—Tubercolosis of the Eye, Ear, Nose and Throat; of the Skin, of the Mouth, Tongue, Intestines and Rectum; of the Genital Organs; of the Urinary Organs.—By Dr. Stuart McGuire.

Cases of Head Injury With Operation, Dr. H. S. MacLean, says that in cases of head injury requiring operation the treatment has been to open the skull with a three-eighth inch trephine, enlarging the opening as required with a De Vilbiss forceps, which has entirely supplanted the large-bore trephine in his hands. Openings measuring, roughly, three-fourths by one and a half inches base been made quickly and smoothly with this instrument. Drainage is freely used—either small rubber tubing or tightly twisted strands of silk worm gut, packing the bone opening tightly with gauze—no foreign body has been used to replace or stimulate regeneration of bone in the closing of the wounds, the only procedure being to draw the periosteum as far over the opening as possible, allowing it to fall in on the dura mater. The cases reported are all young subjects and the results have been good so far as the regeneration of bone is concerned in the wound. The author is prejudiced against the use of foreign bodies for replacement but should the occasion arise for filling a

large opening he intends to do it by transplanting a piece of the outer table with its periosteal covering adjacent to the wound. In the author's experience with cases of this character he has been impressed with the remarkable tolerance of the brain to operative work and the comparative rarety of infection. In all cases free drainage was used for the first thirty-six hours. So strongly has this impressed the author that he is inclined to advise trephining in place of lumbar puncture in cases of cerebrospinal meningitis when decompression is indicated. He would certainly prefer a small trephine opening in meningitis cases where the symptoms pointed to a preponderance of cerebral involvement. Five very interesting cases are reported in this paper.

Book Notices.

Proceedings of the American Medical Editor's Association. Thirty-eight annual meeting held at Atlantic City, N. J., June 1-3, 1907. Published by the Secretary, ninety-two William street, New York, 1907.

Manifesto de la Komnuista Partie. The Communist Manifesto. By Karl Marx and Frederick Engels. Authorized English translation. Edited and Annotated by Frederich Engels. Chas. H. Kerr & Co., Chicago, 1908.

Preliminary Announcement of the International Congress on Tuberculosis. Washington, D. C., U. S. A., Sept. 21 to Oct. 12, 1908.

Applied Physiology, a Manual of Pathological Physiology, showing the functions of the various organs in disease. By Frederick A. Rhodes, M. D., Professor of Physiology, Medical and Dental Departments, Western University of Pennsylvania. $2.00 prepaid. Medical Press, Pittsburg, Pa., 1907.

This work by Dr. Rhodes is unique. So far as we know there is no other book of its kind in existence. For both student and practitioner the book is practical and helpful. A general discussion of the various classes of symptoms introduces each chapter, followed by causes of the particular symptoms in each disease. Theory occupies but a small place because the student of medicine should learn facts first. The various explanations are outlined, which renders the text more pleasing to the eye. It teaches the student to understand why many a symptom exists; he does not take everything for granted and is therefore the better able to use a remedy when indicated.

Proceedings of the twenty-sixth annual convention of the National Funeral Directors' Association of the United States. Held at Norfolk, Va., Oct. 8-10, 1907.

Cosmetic Surgery. The correction of featural imperfections. By Charles C. Miller, M. D. Including the description of a variety of operations for improving the appearance of the face. 136 pages. 73 illustrations. Prepaid $1.50. Published by the Author, 70 State St., Chicago, Ill.

The author describes in a concise manner the various operations which he performs, under infiltration anesthesia, for the correction of featural deformities. The illustrations are not specially attractive, yet they show what is intended clearly enough. The descriptions are short, concise and clear.

The Every-Day Diseases of Children and Their Rational Treatment. By Geo. H. Candler, M. D. The Clinic Pub. Co., Chicago, 1907.

This little volume contains a vast fund of information for the student and for the every day practitioner. It includes those little things, details, which the large text books omit. The specialist knows these things or should know them because he has learned them by experience, but this book is not for him. The general practitioner however probably sees and is called upon to treat more of the ills of childhood and infancy than all the pediatrists put together. Alkaloidal Therapy forms the basis of the work.

Homeopathic.

"My wife has that awful disease, kleptomania."

"Is she trying to cure it?"

"Well, she is taking something all the while."

—*February Lippincott's.*

Affinity.

It is clear they were made for each other;
What else can a kind fate intend?
For, just to the penny, his salary
Is the limit of what she can spend.

—*February Lippincott's.*

Abstracts of the Leading articles of the month.

Tubal Abortion.—Fitzgerald (Lancet) gives the history of one case. The patient was a primipara of thirty-five years, married nine years. For three years she had had

leucorrhea, irregular menstruation, metrorrhagia, and pain in the left side. In June, 1907, she had an attack of acute epigastric pain, and presented some evidences of internal hemorrhage, but her menstruation had been fairly normal, pulse was good, abdominal palpation caused no pain, and examination of the pelvis showed only a cervical polypus, a slightly enlarged uterus, and some infiltration of the right broad ligament. While in hospital for the proposed removal of the polyp, she was seized with sudden epigastric pain; apparently fainted and vomited much coffee-ground material. The next day the polyp was removed, the uterus lightly curretted, and an exploratory incision made through the posterior fornix. The findings in the pelvis at once let to a diagnosis of ruptured extrauterine pregnancy and the abdomen was immediately opened. The intestines were firmly matted by adhesions, and entrance was finally gained to the abdominal cavity by stripping the peritoneum from the muscular sheath and working down along the right of the incision. In this way access was gained to a small cavity and thence to a larger one lying lower down and which had been entered by the incision through the fornix. In this second cavity was a large clot in the middle of which was the amnion. The rest of the tube was much elongated, exceedingly friable, and formed a pedicle for the dilated portion which lay to the right and slightly above the level of the anterior, superior iliac spine under cover of a closely matted mass of intestines. The condition of the patient was now such that all that could be done was to pack hurriedly the cavities with gauze. The next day the packing was removed and bleeding recommenced. After a perilous experience the patient finally recovered. The operator notes that the difficulty in making a satisfactory diagnosis, previous to operation, was greatly increased by the protracted history, the persistent irregularity of the patient's menstruation, and the fact that though, as was subsequently discovered, she had lost a considerable amount of blood her pulse throughout was a normal one. Her anemic appearance, too, was regarded by her relatives as being her normal condition. Then, again, the absence of all pain or tenderness during examination of the uterus and its surroundings was a misleading feature. The presence of two cavities appears to be explained by supposing that there had been, at least, two serious hemorrhages. With each hemorrhage the dilated tube, which all the time appears to have been endeavoring to expel the ovum, was pushed higher up into the abdominal cavity and elongated. The position in which the dilated end was found is uncommon, as is also such a degree of attenuation of the tube. The control of the hemorrhage was rendered doubly difficult by the fact that one had so limited an opening into the peritoneal cavity through which to work, and even this was more or less diminished by the endeavors made to avoid damaging the bowel. On subsequent consideration one cannot but regret that the original incision was not abandoned and an opening made, through skin and muscle, directly over the opening into the peritoneal cavity. It would certainly have facilitated the operation. The introduction and removal of the gauze—which was several yards long—would have been simpler, especially the removal.

A Case of Swine Erysipelas in Man Cured by the Use of Serum.—Welzel, (Munch. Med. Woch.) says that several cases have been reported in which human beings, usually veterinarians, have been infected with the bacilli of swine erysipelas. In performing the immunizations which are now done on a large scale, the antiserum is injected into the animal and also a very small amount of a pure culture of the bacilli. In doing this it not infrequently happens that the operator pricks or scratches himself, owing to the restlessness of the animal. Of five cases of this sort reported one ended fatally and the ordinary surgical measures applied did not appear to modify the course of the disease in the others. Another veterinarian who accidentally inoculated himself promptly injected some of the immune serum, with the result that the symptmos quickly subsided. Welzel's own patient was a veterinarian who inoculated himself in the course of his work and manifested symptoms of a severe infection that threatened to become generalized. A single injection of the ordinary immune serum used for treating pigs sufficied to arrest the infection and produced almost instant relief in regard to both the pain and the local symptoms.

Renal Decapsulation in Eclampsia—Franck-Munchener mediziniche Wochenschrift, summarizes the histories of nine cases in which Edebohl's suggestion of renal decapsulation for the treatment of eclampsia has been carried out and adds the description of a tenth case of his own. In this instance the patient, who had passed into the status eclamptieus and had seizures every ten minutes, did not improve after accouchement force and fifteen hours later was practically moribund, with

suppression of urine. Double decapsulation was done without anesthesia and a diminution in the attacks very promptly resulted, so that during the succeeding twenty-four hours there were very few and twenty-four hours after the operation they ceased entirely, the patient became conscious, and a considerable amount of urine with only a comparatively moderate albumin content was voided. The improvement in the patient's condition was striking, but she died as the result of a bronchopneumonia on the fourth day. The author considers that while the mortality of the reported cases is about 30 per cent., this is in large measure due to the fact that most of the patients were already in desperate straits, and he believes that in cases in which the seizures persist after the uterus has been emptied, decapsulation should immediately be resorted to.

Tubercle Bacilli Entering by Way of the Intact Skin.—Babes has shown that the tubercle may enter the body through the unbroken skin, and that this may happen especially in the infant on account of its more tender skin. The entrance of the bacteria is favored by washing and shaving the skin, and a certain amount of dirt and scales upon the skin act as a protector against their entrance. The germs pass directly to the nearest lymphatic glands. Slight skin lesions in children and eczema favor the entrance of the bacilli. Tuberculosis which has thus reached the glands progress very slowly and is often found in the glands of the mediastinum and the bronchial glands at autopsy, without having given any signs during life. Such children are called scrofulous.—La Presse Medicale.

Acute Pulmonary Edema—Mery an Badonneix, Gazette des Hopitaux, say that acute pulmonary edema is always on active process resulting from a sudden elevation of arterial tension in the pulmonary artery and characterized by a sudden effusion of serum into the alveoli. It is distinguished from passive congestion by the suddenness of its onset and the severity of its results. It is essentially noninflammatory. It results from affections of the kidneys, and of the aorta, in gouty subjects, and in rheumatic conditions, as well as in some forms of intoxication. There is present arterial edema, and an afflux of blood favored by vasodilatation of the arterial system. Various theories are advanced as to its causation; the angioneurotic and toxic are the principal ones. The lungs are rigid, turgescent, and erectile. There is intraalveolar edema, the alveoli being distended with an albuminous fluid without fibrin. Symptoms are urgent dyspnea, respiratory anguish, and pressure of crepitant and bubbling rales. There is no modification of the respiratory rhythm, and no elevation of the temperature is observed. Death occurs rapidly, often after more or less severe convulsions. The treatment of the condition is mainly prophylactic. Sparteine and strophanthus are often of considerable value, but the authors say that the use of digitalis is strongly contraindicated. Morphine is never admissible. Oxygen inhalations will sometimes be found to be of real service.

Remarks on Appendix Abscess.—Battle, The Practitioner, says that a waiting policy is not advisable for this condition, for a favorable termination can seldom be prognosticated with assurance. Many dangers may be avoided by the early evacuation of such an abscess, for (1) it may open into the bladder, large bowel, or rectum; (2) it may extend to the pelvis and left side of the abdomen, or into the hepatic region or even into the pleural cavity; (3) it may rupture into the peritoneal cavity; (4) it may cause general toxaemia; (5) it may be complicated by intestinal obstruction. Stress is laid upon the importance of rectal examination, especially in cases in which the symptoms are indefinite and the local signs few. It is thought that removal of the appendix is not indicated as a routine practice. The opening of the abscess is without danger if done by a competent person, but the search for the appendix in the wall of an abscess may cause serious trouble. The mortality of appendix abscess from all causes in a consecutive series is placed at 10 per cent., but if treated surgically from the first it should be under 5 per cent.

Suppuration in the Region of the Pharynx.—Fitzwilliams, The Practitioner, recalls the fact that this subject has attracted the attention of many eminent writers. He analyzes a series of seventy-five cases observed among children, and divides them into the following groupes: 1. Quinsy or suppuration in and around the tonsil, the pus being always superficial to the pharyngeal aponeurosis. 2. Retropharyngeal abscess, in which the suppuration starts in the retropharyngeal space. The abyscess is outside the pharyngeal space. The abscess is outside the pharyngeal walls, between the buccopharyngeal aponeurosis and

the prevertebral layer of the deep cervical fascia. 3. Postatenoid suppuration, which is between the lymphoid tissue in the mucous membrane and the pharyngeal aponeurosis 4. Suppuration or caseation in the deep cervical glands.

Genitourinary Tuberculosis.—Godlee, Lancet, discusses prognosis in relation to treatment of tuberculosis of the genitourinary organs. As regards the most frequent form tuberculosis of the testicles, he has come to the following conclusions: 1. That it is usually a chronic disease and that a majority of those cases which appear to be acute or subacute have been preceded by a slow enlargement of the organ which has escaped the attention of the patient. And this is based upon the facts that thickenings of the epididymis are often discovered accidentally, and in operations on the acute or subacute cases more extensive cheesy masses are usually met with than it is possible to suppose could have been formed since the apparent onset of the disease. No doubt the acute process does occur, but it is exceptional. 2. That it is so common as to be almost the rule for the second testicle ultimately to be affected, whether the first has been removed or not. The writer has given up removing every tuberculous testicle however quiescent, if no sign of the presence of tubercle could be found elsewhere, because it so often leads to disappointment, the patient returning with the other testicle affected. For the same reason he depreciates extensive operations upon the vas deferens and vesicular seminales. He does not hesitate, however, to remove one testicle which is completely disorganized, both in body and epididymis, if it is causing much pain or inconvenience, and under such circumstances takes away as much of the vas as can easily be got at. Thorough lent results. If after orchidectomy the other curetting of the epididymis often gives excel-

He attaches each compress or piece of gauze. testicle is subsequently affected it should not be removed, but the obviously diseased portions should be cut away or scraped. The internal secretion of quite a small portion of the organ in sufficient to ward off the unpleasant results of complete castration. A very considerable deposit of tubercle may occur in the prostate without causing any symptoms whatever, and the process go on to almost complete atrophy of the gland. Sometimes an abscess forms, causing retention of urine, and, if it does not burst in the bladder, necessitating a perineal opening.

Gastric Conditions in Wasted Infants.—Miller and Willcox, Lancet, suggest that in dealing with wasted infants we take advantage of the modern methods of analysis of the gastric contents. As a result of their investigations they find that differences exist in the gastric secretion in infantile wasting, corresponding to three clinical groups, as follows: 1. Pure marasmus or atrophic dyspepsia. As a result of prematurity, immaturity, insufficient or improper feeding, etc., the infant wastes. There is a furred tongue, with a tendency to diarrhoea and vomiting, and progressive wasting, with no signs of any acute local disease. Post mortem no changes are found other than atrophy. Examination of the gastric contents shows a diminished activity of both acid and ferment secreting glands, no retention of food in the stomach, and no mucin. 2. Hypertrophic pyloric stenosis. Most usually in a male child vomiting starts in the first few weeks of life; the vomitus quickly becomes large in amount, forcible in character, and is accompanied by rapid wasting. Constipation is usually marked, the stools being small and marblelike. The tongue is generally very furred. The physical signs are definite gastric peristalsis and a palpable pyloric tumor. The contents of the stomach show, as a rule, a marked increase in the ferment activity, together with excessive secretion of mucin. There is also very obvious retention of food in the stomach. The total acidity varies, but tends to be below normal. After regular gastric lavage has been carried out for a short period, the gastric contents lose their abnormalities. 3. Acid dyspepsia. Here the symptoms tend to occur in children three months of age or over. The vomiting is large in amount and may be rather projectile in character and the bowels are constipated. The wasting is considerable, but less than in pylor ic stenosis. The tongue is clean, and the abdomen is usually full. No true peristaltic waves are seen, nor is the pylorus palpable. The gastric contents show an increase in their total acidity, the ferment activity being normal, or below normal. There is no mucin present, but there is obvious retention of food in the stomach. In atrophic dyspepsia pepsin and acids should be given. In acid dyspepsia alkaline gastric lavage, together with the administration of alkalies, such as bicarbonate or citrate of soda, are indicated. In pyloric

stenosis the best diet is one of a noncoagulable nature, such as a whey and cream mixture. The smallest practicable doses of food should be given, so as to avoid setting up a fatal diarrhoea in the atrophied intestine.

The Reaction of Bordet and Gengou in Respect to the Streptococcus in Scarlet Fever.—Foix and Mallein, La Presse Medicale, state that without entering into a discussion as to the streptococcic nature of scarlet fever they can give the following as established facts: 1. The serum of persons with scarlet fever contains antibodies to the strepococcus, antibodies which they have found ten times out of twelve by means of the reaction of Bordet and Gengou. 2. They have found this to be the case as early as the fourth day, and as late as the thirty-eighth day. 3. The reaction of Bordet fails in regard to the streptococcus in the other streptococcic conditions. 4. It remains to be established whether this is a specific reaction to the streptococcus of scarlet fever, or a reaction common to all or to many species of streptococci. 5. This reaction may be utilized as serodiagnostic.

Dangers and Treatment of Placenta Praevia.—Zweifel, Munchener Medizinische Wochenschrift, thus summarizes the principal indications for treatment. Every severe haemorrhage in the second half of pregnancy which suggests the thought of placenta praevia should be so treated, because of the very great danger that a second haemorrhage may cost the life of the mother. To do this the woman should be tamponed for some time, at least a week, unless the birth takes place in a less time. For a long continued tamponade nothing can take the place of the colpeurynter. All material used for the tamponade must be aseptic. The best method to induce labor is the artificial rupture of the amnion, but this can be performed only in cases in which the membrane bulges forward, and this is rarely the case in placenta praevia. As a rule the haemorrhage is checked most cretainly, and with the best maintenance of asepsis by version performed as soon as possible, by the combined method of Braxton Hicks when the cervix is faultily dilated. Extraction should not follow until the crevix is nearly or quite dilated on account of the danger of lacerations of the cervix. At the same time this delay adds to the danger of the child and should not be persisted in to its detriment. Where a laceration is not to be feared active procedures should be taken, and as the laceration takes place only when the head is being drawn through it is possible while waiting in this stage of labor to prevent a laceration and yet to protect the child from suffocation by holding his fingers so that the child can draw air into its lungs by respiration, or by introducing a catheter into its mouth. In central placenta praevia one should first try to displace the flap of the placenta with the two fingers with which he performs the combined version, because this procedure is less injurious to the meshes of the wire basket and tied together. child than boring through the placenta. When this cannot be done the placenta can be perforated at any time, and as hardly a child survives there is no object then in hastening the delivery. Very often in placenta praevia the question is that of miscarriage, and then no active treatment should be undertaken, because this offers little hope of the life of the child and is mose dangerous to the mother. The author deprecates the performance of either abdominal or vaginal Caesarean section in these cases.

Mucocele of the Acessory Nasal Sinuses.—Turner, The Edinburgh Medical Journal, advocates from his experience the establishment of a large opening between the sinus and the nasal cavity. In the nine cases in which this procedure was carried out, cure resulted in all of them with a minimum of disfigurement. As a preliminary step the middle turbinated bone is removed in some of them. An incision is then made parallel to and beneath the eyebrow, which is left unshaved; the upper eyelid is detached and turned downward. After the contents of the mucocele have been removed, any portion of the floor of the frontal sinus, or of the outer wall of the ethmoidal labyrinth, which has not already been absorbed, is removed. In some of the cases a small area of the anterior wall of the frontal sinus is also removed. The lining membrane of the cavity is left untouched. The communication with the nasal cavity is then sought for with a fine probe; no ostium may be found. Whether the normal ostium be found or not, a large opening into the nose is made by means of burrs, and through this a rubber drainage tube is passed, being held in position in the lowest part of the sinus by a collar formed by turning over its upper end. The lower end of the tube does not quite reach the vestibule of the nose. The sinus is next lightly packed with gauze, the end of which is brought out through

the inner end of the incision which is sutured with the exception of this small area. The gauze is removed at the end of four or five days, the cavity is washed out, and if the nasal drainage tube is found to be working satisfactorily, the skin incision is allowed to close in a week or ten days. The bandage is then removed, and the patient can be instructed to wash out the sinus daily by introducing the fine nozzle of a syringe into the nasal end of the drainage tube. The success of the operation will largely depend upon the maintenance of a permanent opening between the sinus and the nose, therefore it is necessary to keep the drainage tube in position for a considerable time. It should not be removed until at least six weeks after the operation.

Dysentery — Sandwith, (Lancet) states that the diagnosis of dysentery is not difficult to physicians trained in the examination of the excreta. The disease most often confounded with dysentery are carcinoma, polypi, and syphilis of the rectum, haemorrhoids, and, in those returning from the tropics, bilharziosis. Bacillary dysentery can be distinguished from amoebic dysentery. The following points should be remembered: 1. Amoebic dysentery, unless skillfully treated at the begining, usually runs a chronic course, while the bacillary lasts only from four to eight days in mild cases, and from three to six weeks in the serious ones. 2. In the amoebic form no bacilli can be found unless there is, as is rare, but quite possible, a mixed infection of both amoebic and bacillary dysentery. 3. Toxic symptoms, such as high fever, rapid emaciation, and nerve complications, exist in bacillary dysentery, but not usually in the amoebic form. 4. Liver abscess is a very frequent complication of amoebic dysentery, and does not exist in the unmixed bacillary form. The conditions necessary for a certain diagnosis of bacillary dysentery are the positive agglutination reactions of the dysentery bacillus with the blood serum of the patient, or the isolation of the bacillus from the faeces of the patient or from the organs after death. The bacilli are obtained more readily and in larger numbers from the mucous membrane of the rectum than from the stools. They do not enter the general circulation. The treatment of the acute form calls for rest in bed as the first essential. Physiological rest for the intestines should be obtained by stopping all solid food, and giving small quantities of milk every two or three hours. When the tongue is thickly coated and the patient cannot take milk, give broths, whey, or rice water for a few days. Alcohol will not help the dysentery and is bad for the liver. All food should be given tepid. Castor oil, sulphate of magnesia, or calomel should be give first to clear out the bowel. Small enemata of saline solution will diminish tenesmus, and cocaine or opium suppositories may be given for the same purpose. Where there is much haemarrhage from the bowels, an ice bag should be placed over the abdomen and opium given internally. For collapse the subcutaneous injection of normal saline soloution is of service. Ipecac and large enemata of silver nitrate are not useful in the acute cases. Serum treatment, which is bactericidal as well as antitoxic, is of great value in early cases (second or third day), the blood and mucus disappering, the pain and tenesmus ceasing, and the patient getting refreshing sleep. In mild cases only one injection of ten cubic centimetres is given; in severer cases this is repeated after six to ten hours, and in grave cases the injections must be repeated twice daily for two or three days. Amoebic dysentery is the form met with so frequently in the tropics, and in London in seven times as frequent as the bacilliy form. The symptoms of liver abscesses are sometimes the first to attract attention to the intestinal disease. The general treatment is the same as hat of the acute bacillary form; rest useful drug by the mouth as a continuance; is especially necessary. Bismuth is the most the salicylate in wafers of fifteen grains every four hours is to be preferred. The rational treatment is to destroy the amoebae by means of rectal irrigations. Quinine (1 to 1,000), nitrate of silver (1 to 1,000), and sulphate of copper (1 to 1,000) are all useful. The enemata need not be retained more than five minutes, and should be given warm. Once a day is usually sufficient, a simple cleansing enema being given at night. It is impossible to produce a vaccine for the amoebic form of dysentery, because there is no evidence of any creation of toxine. The writer does not think highly of the surgical treatment of dysentery, consisting in colostomy, or in washing out the bowel through the appendix.

The Prognosis in Operation for Vulvar Carcinoma.—Grunbaum (Deutsch. med. Woch.) records five cases from Landau's clinic in Berlin to show that the outlook is not as black as was painted by Hildebrandt in 1879, when he stated that no permanent result could be

expected of there was any involvement of the inguinal glands. The results in these cases of the Landau's clinic were very encouraging. In one case of advanced carcinoma recurrence took place in a very short time and led to the death of the patient, and in another, where operation had been advised long before the patient would consent, death occurred one and three-quarters years after operation. Of the other three cases, one patient remained free for five and a half years, when a small recurrence in the scar was removed, but she lived for nine and a half years after the first operation, and died of general debility at 82 years of age, though there was then another small recurrence. The other two patients remained six and a half and eight years, respectively, without return of the disease, and in one case this was especially remarkable in that the glands were found to be carcinomatous when removed at the operation.

Other statistics are also considered by the author, especially the valuable series of 169 cases collected by Coldschmidt (Inaugural Dissertation, Leipzig, 1902), and as a result he finds that a permanent cure may be hoped for in a certain number of cases, even if there are already mestastases in the inguinal glands, but in order to obtain the best results a wide excision of the primary growth must be made and the inquinal glands and surrounding fatty tissues removed on both sides, whether or not any enlargement can be detected.

A Salt Free Dietary in the Treatment of Scarlet Fever and Acute Nephritis.—Deleardo (L'Echo Medical du Nord,) says that salt in small quantities has been often shown to be indispensable to the health of the normal body, but in the way it is ordinarily employed (as a condiment) it passes as waste product through the urine and feces. Most articles of diet contain in themselves a sufficient quantity of salt. If the kidneys become affected and their activity diminished, excess salt is stored in the tissues, which then call for water as a solvent, thus causing edema.

While milk diet is not to be wholly condemned, the writer calls attention to the fact that in giving a sufficient quantity to keep up nutrition, a considerable amount of salt is ingested, which may act as an irritant to the kidneys, and, furthermore, milk is not regarded as sufficiently sustaining during the period of convalescence in scarlet fever when the patient should be fortified against the ravages of secondary infection. During the stage when the throat is red and swollen, porridge, broths and eggs may be given, and later, meats, fish, vegetable purees, eggs and bread, all unsalted. Diuretics are administered as a matter of routine. A series of cases successfully treated according to this regime are cited by the author.

The Time of Leaving Bed After Normal Labor.—Bouchacourt (Presse Medicale) reviews the disadvantages and advantages of the puerperal woman leaving the bed early after a normal labor. The dangers in the main are infection, arrest of involution of the uterus, danger of uterine displacement, of embolism, and finally the danger of ptosis Only the last mentioned really need be considered. All the authors who recommend leaving the bed early insist upon the use of a proper abdominal bandage. Infection can be avoided. Early leaving of the childbed, indeed, seems to hasten the involution of the uterus, and to lessen the danger of a displacement. Of course, sudden movements may lead to embolism, but Kuestner, in his very extensive experimental researches, did not meet with a single instance of embolism. Among the advantages of a short stay in bed are a favorable influence upon digestion, circulation and urinary function, and the promotion of milk secretion.

The writer advises considerable freedom of movement while the woman is in bed. Gymnastics and passive movements are advised by some authors. The length of stay in bed should be suited to the character and social station of the patient and the gravity of the case, from one to two weeks being sufficient in normal cases.

Goitre and Cardiac Diseases.—Gittermann (Berliner kliniche Wochenschrift) found among 895 patients with myogenous disease of the heart (651 men, 244 women) 121 with evident goitre (21 men, 100 women) in 11, exophthalmic goitre was present; in 110 there was a goitre which had lasted many years and to which in the course of time a disease of the muscle had been added. While in the cases of exophthalmic goitre the disease had begun in early life, of the others 6 had begun to suffer between the ages of twenty and thirty, 19 between thirty and forty, 27 between forty and fifty, 43 between fifty and sixty, and 15 over sixty. In 71 there was a myocarditis with concentric hypertrophy of the heart, with no signs of Basedow's disease; in 29 there was

...cryptiana without great acceleration; in 7 attacks of tachycardia, with otherwise normal action of the heart. In 8 cases there were evident signs of arteriosclerosis; in 15 cardiac murmurs could be heard; 3 had valvular trouble due to rheumatism; 1 severe arthritis deformans, and in 1 there was great emaciation from the use of thyreoidin. Twelve patients had fainting spells, 4 had serious stenocardic attacks with pulmonary oedema; only three time were slight circulatory disturbances and oedma found. In 31 there was simple dilatation of the heart; 23 of these had trembling of the hands and general nervous symptoms, with rheumatim pains, and 8 had a slight exophthalmos. Five had heart murmurs, 13 had acceleration of the pulse, usually regular, and 18 had attacks of tachycardia. Many more symptoms are likewise mentioned.

Haemolysis Through Serpent Venom.—Von Dungern and Coca, Muenchener Medizinische Wochenschrift, say that the peculiar appearances which we have learned to recognize with cobralecithin haoemlysis can also be produced by an entirely different mechanism, as when it is caused in the blood solution by immune bodies and complement. They recount a considerable number of experiments and draw the conclusion that the antitoxine produced by immunization acts against the native cobra poison contained in the haemolysin alone, but not against the finished cobralecithin haemolysin. They also say that they have obtained from various ovolecithin preparations without cobra venom a haemolytic substance which behaves the same as regards proportionate solubility in water, alcohol, ether, and acetone, as the haemolysin with cobra poison.

When and How Should an Injection of Antitanic Serum be Given?—Hardouin, LaPresse Medicale, answers this question thus: 1 In every case where, on account of a tortuous wound, one is not certain of his ability to obtain a rigorous disinfection, particularly when the patient has been specially exposed to contamination. 2. This injection should be made as soon as possible after the accident, but if one is called to a patient with a suppurating tortuous wound forty-eight hours or three days after the accident the same injection should be made, because, even if the effect upon the toxines is not so great, less cells will be destroyed. 3. The injection of the antitetanic serum should be repeated two or three times at an interval of eight days if the wound should continue to suppurate. 4. Finally he recommends that the antitoxic injection should be made in every case in which the practitioner has the least doubt.

The Genesis of Albuminuria.—Schmidt, Munchener medizinische Wochenschrift, refers to the fact that it is generally considered that the albumin contained in nephritic urine emanates from the blood. It is assumed that inflammatory changes in the kidneys interfere with the integrity of the renal filter and permit serum albumin to pass through and emerge in the urine. Only some of the formed elements are considered as being or renal origin Schmidt suggests that this view may not be altogether accurate and that perhaps all or almost all of the albumin comes from the renal parenchyma itself. He points out that just as any inflamed organ, for example, the serous membranes or the epidermis deprived of the cutis, may pour out albuminous exudate, so the inflamed kidney may be the seat of an albuminous exudation which will be the richer in albumin the fresher, the more intense, and the more extensive the pathological process is. This exudate may therefore be considered as a sort of wound secretion from the kidney. The point is of more than theoretical interest, for the albumin in physiological or orthostatic almuminuria would probably not have this origin, and by the development of appropriate tests it might be possible to evolve differential diagnostic measures founded on this principle.

The Action of Pancreatin in Carcinoma.—Hoffman, Munchener medizinische Wochenschrift, studied the effect of this ferment on a carcinomatous new growth of the external auditory meatus occurring in a woman of sixty-eight years. Sections of the tumor showed that it was a carcinoma, and it recurred after operation, finally becoming inoperable Pancreatin was applied locally and the ulcerating surafce became clean, the pain and hemorrhage ceased, and the growth became smaller. The action of the ferment was later restricted through the fact that epidermization took place over a large portion o fthe growth This new formed skin was purposely not removed mechanically, as it was desired to study the effect of the pancreatin alone. The patient died suddenly, apparently of embolism, without any meningeal symptoms. Examination of the tumor tissue showed extreme edematous infiltration and moderate cellular growth of the connective tissue. The capillary endothe-

lium was swollen and there were the evidences of deep-seated degenration, but whether these were the result of the action of the pancreatin or not is uncertain. The lesions resembled those of erysipelas and the author suggests that the effects of this disease, the cautery, and in part the Rontgen rays may act on carcinomatous lesions in somewhat the same way as the pancreatin. He also suggests that pyocyanase, on account of its proteolytic and bactericidal properites, my be found of use in the treatment of inoperable cancers.

The Results Obtained in Tuberculosis Sanatoria.—Croissant, Munchener medizinische Wochenschrift, presents an exhaustive series of statistics relative to the results obtained by the sanatorium treatment of tuberculous patients in various stages of the disease as compared with those obtained outside of institutions. While the results of this analysis are not particularly favorable to the institutions, the author considers that the spirit of pessimism that has lately made itself felt in this connection is not justified, even though it is unlikely that sanatorium statistics will ever be able to present results imposing from the numerical aspect. The greatest good is achieved not in point of numbers, but in individual cases, and this is not evident from statistics. In the earlier stages but little more is accomplished within the institutions than outside and therefore it is hardly necessary to set the standard for admission to these so high. More advanced cases must be kept long enough to effect a real cure, longer than is usually the case, and such patients when discharged serve as a very potent means of education and prophylaxis among the masses. A point of the greatest importance is to improve the social condition of the poorer classes in regard to dwellings and mode of life.

Potassium Permanganate Solution for Fissure of the Anus.—Schuls, a Russian physician, recommends the following simple treatment of lineal ulcer of the anus. He commences by placing the patient upon a diet which will make soft stools. This being accomplished, he places the patient in the genupectorial position, and asks the patient to make the rectal mucosa project. By separating the folds of this with the fingers, the fissure is easily detected. In men the lesion is usually found at the posterior path of the anal orifice; in women, on the contrary, it is in the anterior part of the anus. They may be confined to the mucous membrane, but are sometimes prolonged to the skin around the anus. In the latter case, the integuments form a little projection at the level of the fissure, which is often mistaken for haemorrhoid. Having located the ulcer, an application is made to the surface of saturated solution of potassium permanganate by means of a small piece of cotton, tightly wound around a probe. It should be applied to the whole extent of the fissure, but care should be taken that there should be no excess of caustic to overflow the adjacent tissues. All the fissures are thus treated at one sitting, each having only one application. This treatment can be repeated daily, until cure is complete, which will be in from eleven to twenty-eight seances.—Journal de medecine de Paris.

Extract Mistletoe for Haemorrhage.—Gaultier (Le Bulletin medical) reports the results obtained by the administration of an aqueous extract of mistletoe of the oak, and also by hypodermatic injection. The usual dose of the extract in pill form was 0.20 to 0.30 gramme (or gr. iii to v) in the twenty-four hours. The hypodermatic dose was 1 c.c. of a solution representing 0.20 gramme of the aqueous extract. The physiological action is that of a reducer of tension, a hypotensor. Its clinical applications are found in congestive haemorrhages and partly the haemoptyses of tuberculosis, which it stops almost immediately, by reducing arterial pressure. It is also valuable in relieving the symptoms arising in arteriosclerosis, by reducing the high tension, without producing toxic effects. Other applications of a similar character may be found for this antihaemorrhagic and hypotensive remedy.

Hemophilia Transmitted Through the Male—Swanton (Lancet) reports an interesting family history. The disease originally appeared de novo in the father. Of his thirteen children the malady appeared in only one, a son, who had been a bleeder from infancy. This son, now a man of forty years, is the father of six girls and one boy, ranging from two months to nineteen years, all of whom, with the exception of one girl of eight years, have shown haemophilic tendencies. Four have died, two boys at eight months and four years respectively, from "convulsions," said to have been due to epistaxis, and one boy,

aged ten months, and a girl aged two years and eight months from pneumonia following measles accompanied by severe epistaxis and bleeding from the mouth. The disease in the father chiefly takes the form of spontaneous epistaxis which is difficult to control and is preceded by malaise and headache. He also suffers from painful swelling of his large joints. All the children look healthy; they have very soft white skin and fair hair. The only surviving son suffers frequently from epistaxis, which is most alarming in its persistence. It is preceded, for a few days, by an elevated temperature with frontal headache, faintness, loss of appetite, and pain in the back. The elbows, wrists, knees and ankles are swollen and very painful. With the onset of bleeding he perspires freely. Any form of traumatic bleeding is only controlled with the greatest difficulty. He also bleeds per anum when suffering from diarrhea.

Methylene Blue for Cracked Nipples.—Dreseh (Gazette medicale de Paris) states that for several years he has employed a 3 per cent. solution of methylene blue (Methylthioninae hyrochloridum, U. S. P.) as a topical application to the nipples, during nursing, in order to prevent and cure fissures or excoriations. The results are alleged to be excellent; the method is convenient, economical, and does not require any precautions as to nursing. The procedure is as follows: Both the nipples and the mouth of the child are washed with a warm solution of sodium bicarbonate (2 per cent.) Then, with a piece of absorbent cotton on a probe, the solution of methylene blue is to be applied to the nipples. This is best done immediately after nursing, when the nipples are at the maximum of erectility. The methylene blue has a local anaesthetic effect, and also is an agent that is very favorable to keratinisation, the latter being of considerable importance in an organ which is constantly being macerated with saliva and the milk. The infant nurses from the nipples without showing inconvenience or the slightest disgust. Its mouth becomes discolored with the blue stain but the urine is not sufficiently discolored to stain the napkins, although it may contain traces, but this is of no importance. Daily applications for a week or ten days usually suffices to effect the cure.

Clinical Observations on the Origin of Fever Lorand (Lancet) declares that the maintenance of health depends on the integrity of the internal secretions of the ductless glands, especially the thyroid. Persons and animals deprived of it suffer from all sorts of infection He then goes on to show that Graves' disease and fever have similar clinical manifestations as rapid pulse, thirst, sensation or heat; after awhile abundant perspiration, etc. Vasodilatation and sweating can be produced by thyroid feeding. This latter symptom of fever is a device of nature for eliminating toxic materials. Its occurrence is generally followed by an improvement in the general condition The diarrhea of some infectious diseases is a typical Graves' symptom. To complete the analogy, the author mentions also toxic decomposition of proteins, loss of weight, muscular weakness and fever, and increased urea elimination. In both there is increased exidation, possible delirium, cutaneous eruptions, etc. Fever symptoms, therefore are due in a general way to increased activity. Consequently, it seems to the author that we are justified in believing that fever is a beneficient institution of our organism which is produced by an increased activity of the thyroid gland as a reaction against toxic products and poisons in general. The symptoms of fever are the expression of this increased activity, and they are directed towards the elimination of noxious elements. It would be unreasonable to oppose this spontaneous healing tendency of nature by fighting these salutary symptoms, unless there be hyperpyrexia.

The Differentiation of Transudates from Exudates. — Janowski, Berliner klinische Wochenschrift,, refers to a test suggested some years ago by Rivalta, which is intended to aid in determining whether or not an effusion is of inflammatory nature or is simply a transudate. In order to perform it a drop of the fluid in question is allowed to fall into a solution of two drops of glacial acetic acid in 100 c.c. of water. Instead of glacial acetic 20 drops of ordinary vinegar may be used. If the fluid is an exudate the path of the drop toward the bottom of the vessel will be marked by a white or bluish white steak of precipitated albuminous material, while if it is a transudate the acetic acid solution remains clear. Effusions taken from cadavers always give a negative result, but this is unimportant, as the truth of the character of the process can usually be determined by inspection. Traces of blood do not interfere with the results and do not give any precipitate in the case of transudates. The test is negative with

normal cerebrospinal fluid, the fluid from echinococcus cysts of the liver, hydronephrosis and amniotic fluid. It is positive with fluid from incarcerated hernias, ovarian cysts, and hydrocele children. In a large number of cases in which the methods was tested by the author it gave uniformly reliable results and in some instances gave decisive information when the other data were inconclusive. Rivalta at first believed that the reaction was due to the presence of nucleoalbumin from the leucocytes occurring in inflammatory exudates, but in a later communication has expressed the view that it is caused by euglobulin and pseudoglobulin from the blood.

Acute Poisoning After Oil Enemas.—Butter sack, Deutsche medizinische Wochenschrift reports a case of serious poisoning accompanied by methemoglobinemia occurring in a woman of thirty-three years, who was given an enema of 250 c.c. of oil of sesame for an attack of gallstone colic. This remedy had been frequently used before for the same condition without any untoward consequences, but on the occasion in question the injection of the oil was promptly followed by symptoms of collapse which in a few hours became so severe as to make recovery seem doubtful. The blood was chocolate-colored and gave the characteristic methemoglobin spectrum, while the surface of the body was cyanotic and cold especially the face, ears, fingers and toes. Urine passed ten hours after the enema contained blood cells and traces of albumin, but no hemoglobin or methemoglobin. Twelve hours later hemoglobin was present in abundance. The treatment consisted in the administration of cardiac stimulants and in the inhalation of oxygen, which seemed to be particularly beneficial. The patient finally recovered completely. Examination of the oil revealed the fact that this was not oil of sesame, but a yellow paraffin oil. Several somewhat similar cases have been reported in which the oil of sesame used was the oleum sesami gallicum instead of the oleum sesami germanicum, and in these the symptoms strongly resemble those exhibited by the author's patient.

Compresses Left in the Abdomen—Prevention.—Wechsberg (Centralblatt fur Gynakologie) claims that no method of counting or other means of accounting for compresses is certain to guard against error as long as men are human.

wire basket in which they are sterilized. Only free ends of the tapes are passed through the used after the abdomen is opened, to the are used, and to each compress is attched a large compresses of several layers of gauze piece of narrow tape, over six feet long. The The basket may be placed on the floor under the table. The tapes are not annoying after one is used to them.

Breast Treatment — After Treatment. — Ewald (Centralblatt fur Chirurgie) recommendst he bollowing dressing, to avoid the stiffness of the shoulder, which prevents the arm from being raised, after amputation of the breast.

After dressing the wound as usual, but with the arm free, the patient is put to bed and the hand of the affected side is folded around a short stick of wood, and held closed by a bandage. The band is then attached to a support which extends out from the head of the bed, so that the arm is about horizontal, and the forearm bent up. The elbow is supported by a plaster strip around the support. The position exercises traction on the fold of the axilla and thus prevents the collecting of blood in the wound. The arm is left still for three days, and is then lowered for a few minutes at a time until it can be moved without danger of opening the wound. When the patient rises the arm is fixed across the body while she is up, and suspended as soon as she returns to bed. The dressing has not been found especially uncomfortable, and the arm can be raised to the head at any time after the dressing has not been found especially uncomfortable. and the arm can be raised to the head at any time after the dressing is removed.

Placenta Previa—Treatment in Private Practice.—Fueth (Centralblatt fur Gynakologie) recommends immediate delivery after the first hemorrhage, as thert is great danger of secondary hemorrhage or septic infection with other methods of treatment, unless the patient can be watched continuously until delivery.

The liability to placenta previa bears no relation to the age of the mother nor to the number of previous conceptions. The first hemorrhage usually occurs some time before labor, and it is apt to recur if left to nature. Of the cases without immediate medical aid, one-third die. Of 726 cases only 23 had no hemorrhage before labor pains occurred. Treatment with tampons gives great danger of infection in private work, and also of repetition of the bleeding when no physician is

at hand. It is therefore best to induce labor, preferably by introduction and inflation of a metreurynter, as soon as the diagnosis can be made. In hospital practice, where physicians are always at hand, it is perhaps safe to wait of the bleeding is not profuse or can be checked without difficulty.

The Technique and Significance of Wasserman's Syphilis Reaction.—Meier, Berliner klinische Wochenschrift, describes the latest modifications in technique that are now used in Wasserman's laboratory and also gives the results of the application of the method in a considerable number of clinical cases. Three hundred and fourteen serums, twenty-nine cerebrospinal fluids, one placenta, and one hydrocele fluid were examined. Of the 181 patients known to be syphilitic 81.7 per cent. gave a positive reaction, 2.7 per cent. a doubtful reaction, and 15.6 per cent. a negative reaction. In 21 cases in which syphilis could be excluded the result was always negative. The author concludes that the test is specific for syphilis and that itis sufficiently reliable to afford a useful addition to our diagnostic mands a skillful and experienced worker for methods, but that its complicated nature deits performance.

Functional Tests of the Gastric Function.—Tottman, Munchener medizinische Wochenschrift, has made very complete investigations of the gastric function in 60 cases of various sorts. In addition to the usual analysis of the test meal, Mett's pepsin method was used, Sahli's desoid pills were given, and Schmidt's test diet was administered in order to determine the ability of the stomach to digest connective tissue. As the result of these comparative investigations Tottman states that the use of the stomach tube is the most unpleasant for the patient, but in cases of pronounced disease affords very reliable information. In instances of milder disorder it is less to be depended on and may even lead astray, since its introduction may of itself interfere with gastric efficiency. Schmidt's diet froms a most useful method and is little if at all liable to error. It is not adapted for repeated application, since the patients usually are not willing to resort to it a second time, and it is also unsuitable when only fluid food can be taken. Sahli's method can be used in all cases and is the most agreeable for the patient. Careful preparation of the pills from material of approved quality is an essential, and two pills should always be given at an interval of about five minutes. Under these conditions a negative result is more dependable than in the case of the test meal and is almost as reliable as with the Schmidt diet. Positive results must be accepted with more caution. It is very well adapted for use as a method for rapid orientation and for repeated application in watching the patient's progress.

Twenty-five Conservative Cesarean Operations Without Maternal Mortality.—Canton describes a series of twenty-five conservative cesarean sections done without a single maternal death, and gives his conclusions from this experience. The conservative cesarean section is no longer a fearful operation, but, thanks to antisepsis, every such operation lessens death from labor. In contracted pelves when the diameter is less than seven centimers and ahalf, with a living infant of normal development, the cesarean section is absolutely indicated. In contractions with diameter of more than seven and a half centimeters, with a living normally developed child, cesarean section should be done whenever the disproportion between the diameters of the head and the pelvis does not prmit of the engagement of the head after several hours of strong contractions. In the same conditions with a diameter more than seven and a half centimeters, the choice between the cesarean section and symphysecotomy should bemade for the first whenever the life of the mother is to not be preferred to that of the chiid. Under the same conditions the choice should be made between subcutaneous pubiotomy and the cesarean section according as the life of the infant of the mother is most important, since section is most beneficial for the child, and pubiotomy for the mother. In case of fever or infection pubiotomy is to be preferred. In contractions of more than seven and a half centimeters section is to be preferred to version in the interests of both mother and child. Between premature labor and hysterectomy we should choose the first on behalf of the child. In severe eclampsia forced labor is to be preferred in the interests of the child and mother.—Annales de Gynecologie et d'Obstetrique.

Acute Generalizing Peritonitis.—Carwardine, British Medical Journal, uses the term "generalizing peritonitis" to cover all those cases of rapidly spreading peritoneal infection, usually from a primary focus. The common sites of origin of such spreading peritonitis are the vermiform appendix, the uterine appendages, and the gastroduodenal region by reason of infection or perforation. Within the peritoneal cavity there are certain potential spaces which may become converted into pools by accumulation of fluid therein. Which of these spaces is primarily involved depends upon the site of origin, the effect of gravity, and the guiding direction of the viscera and omentum, both static and peristaltic. The accumulation of the infective fluid occupies the true pelvis; the omentum becomes fixed to the diseased focus, and tends to localize the fluid by forming an omental roof. The writer commends the practice of draining serous collections as well as the purulent ones, and if there be any apprehension of subsequent infection of any proximate favorite site, to anticipate this by putting a drainage tube into that area, the favorite pools being pelvic, right and left lumbar, and right and left subphrenic. Two recent improvements in the treatment of these cases deserve notice. The Fowler position consists in placing the patient in the upright sitting position as soon as possible at the time of or immediately after operation, so that the peritoneal exudation may gravitate to the lower abdomen, where drainage is provided for, far away from the more dangerous epigastric areas. Murphy's treatment consists of (1) rapid removal of the focus of infection, with little disturbance of the peritonæum, and closure of the hole in the gut; (2) drainage (a) suprapubic, (b) through the operation incision; (3) rapid operation, preferably through the rectum, and no sutures are put in; (4) no food is given by the mouth for two or three days; and (5) continuous saline infusions by the rectum. The object of these last is not to cause the bowels to act, but merely to keep a supply of a few inches of saline fluid always in the rectum.

Abortion.—Oliver, British Medical Journal, defines abortion as the act whereby an immature and nonviable product of conception is dislodged from the maternal body. External hæmorrhage is not only the most important, but the most common premonitory symptom of abortion, and although it may be induced, atony of the uterus is its most frequent cause. Under such circumstances it may appear as early as the sixth week of pregnancy, about the time when the serotinal vessels begin to undergo rapid enlargement in response to the stimulation of the placental chorion. Hemorrhage may also be due to deficiency of calcium and potassium in the muscular substance of the uterus, or to the presence of some toxic material impairing the tone and responsive power of the organ. In such cases potassium iodide and calcium chloride are given to remove deleterious substances or to supply those which are deficient. When the muscular energy of the uterus is impaired there is often enfeeblement of the nerve energy also, and strychnine, arsenic, digitalis, or phosphorus may be given with benefit. Pain is the other all important prodromal symptom of abortion. It may be noted when the uterus does not adequately respond to and fails to expand correlatively with the developing ovum. The uterine tissues, again, may be responsive enough, but they may be restrained by adhesions. Abortion not infrequently results from physical or mental shock, or a combination of both influences. After the tenth or twelfth week of pregnancy the uterus may be injured directly by a blow on the lower abdomen, and abortion may more or less quickly ensue. But usually there is extravasation of blood from rupture of the functionally active maternal vessels; the blood may never make its escape externally, and pain may be the only symptom. No drugs should be given in such cases; absolute rest is the best treatment. Necrosis of the amniochorion is a very rare cause of abortion, and it determines this event by allowing the amniotic fluid to escape.

Some Considerations in the Use of Cardiac Tonics—Haines, Folia Therapeutica, points out that of the group of cardiac tonics all exert some action on peripheral blood-vessels; they may cause a most intense constriction, as in the case of apocynum or squill, or a very small effect, as in that of strophanthus. This difference in their action is of some importance when one is treating cases of heart disease associated with arterial degeneration and high blood-pressure. In these cases when dilation of the heart, back-pressure, and all the secondary effects resulting from it are the result of persistently high arterial

blood pressure, it is obvious that we should not be content in administering digitalis in the routine manner. We must aim not only at increasing the efficiency of the heart, but at keeping the vessels as much dilated as possible in the circumstances. For this purpose it has been suggested that vasodilator drugs particularly the nitrates, should be administered along with the cardiac tonic. Unfortunately such a combination does not produce the desired effect. First the nitrate effect overshadows that of the cardiac drug, and vasodilatation is the prominent feature; then the cardiac drug obtains sway, and the dilatation disappear. Nevertheless beneficial effects have followed the use of erythrol tetranitrate combined with digitalis or strophanthus.

The author points out, however, that other vasodilators are now known which are almost as efficient as the nitrites, but without some of their objectionable properties; he refers to the purin derivatives—caffeine, theobromine, and theophylline. All these bodies increase the rate of the heart-beat by direct action on the heart muscle, dilate the peripheral blood-vessels as has been shown by Dixon, and augment the flow of urine. Caffeine is of course a cerebral stimulant; it at first excites the vasomotor center and causes constriction of the peripheral arterioles, the central effect for the time being overshadowing the peripheral dilatation. Theobromine has little or none of this central action, and so it produces an immediate dilatation of the vessels, and is, therefore, a suitable substance for combination with the cardiac tonics in such conditions as that to which he has referred. It may be administered conveniently in the form of diuretin, which is a combination of theobromine with sodium salicylate, and has the advantage of being easily soluble. It effects the heart like caffeine—that is, it increases the rate and to some extent the force of the beat. An isolated rabbit's heart in one of the author's experiments showed the effect of diuretin, suitably diluted with Ringer-Locke solution, when perfused through the coronary vessels. One effect noticeable in this experiment, but which is not recorded on the tracing, is the marked dilatation of the coronary vessels. This action on the vessels was noted in another instance by a record of the rate of flow through the vessels of a frog perfused with a weak solution of diuretin in saline solution.

The combined action of a cardiac tonic with a vasodilator of the nature of diuretin is to slow and strengthen the heart-beat and to increase the flow of blood through the vessels, including the coronaries. To some extent the action of the tonic on the vagal endings would be neutralized by the action of the diuretin on the excitomotor area, but the vagal effect always overshadows the tendency to acceleration, and the heart consequently beats more slowly.

Theobromine differs from some other vasodilators in that it exerts a stimulant action on the heart. This was shown in still another instance in which was recorded the heart-beats of an isolated rabbit's heart perfused with saline solution. In this experiment the addition of diuretin to the perfusing fluid not only increases the rate of flow—that is, dilates the coronary vessels—but increases the force of the heart-beat. Perhaps one of the great disadvantages of administering digitalis in cardiac disease is that it tends to diminish the flow through the coronary vessels by constricting them. The author believes that this effect may be to a great extent overcome by giving the digitalis along with a theobromine preparation such as diuretin.

In addition to the coronary vessels theobromine dilates all other peripheral vessels, but owing to the augmented action of the heart the blood-pressure does not fall below normal, but tends to remain even a little above it. Diuresis is an early effect, and is secondary to the increased flow of blood through the kidney—that is, the vascular changes are primary to diuresis, not secondary; there is no evidence to show that diuretin has any specific action on the renal epithelium.

Such a combination of drugs as suggested has produced an excellent effect in cardiac dropsies, failing hearts, and, above all, in general degeneration of the cardiovascular system, following on persistent rise in blood-pressure. Fifteen grains of the theobromate may be combined with ten minims of a reliable tincture of digitalis, and administered every four hours for two or three days; but it is better after that period to omit the drug for some days, not only because digitalis is cumulative, but because the effect of the drug tends to diminish with repeated use in small doses.

Typhoid Insufficiecy and Noctural Enuresis in Children and Adults—Hertoghe (Bull. de

l'Acad. R. de Med. de Begle) believes the thyroid gland principle, in the sense of its cellular product, is of such importance for practically all the organs and functions of the organism that an excess as well as a deficiency will lead to disturbances of a serious character. The thyroid gland presides over the growth of the body and regulates the assimilation and decomposition of food-stuffs. An uninterrupted influence is exerted by it upon the muscles, the nerves, the brain, the skin, the epithelium of mucous membranes and of glands. Also the sexual organs are subordinate to it, in regard to their normal or pathological evolution and function. Hemorrhages, abortions, malformations, the imperfect or normal development of the fetus; the entire period of lacatation, and with it the thriving of mother and child, are controlled by the thyroid gland principle. An excess during pregancy may harm the mother to the advantage of the fetus. The growth of the child, puberty, adolescence, sexual maturity, etc., are all under the same influence. Nocturnal enuresis is usually due to a deficiency in the thyroid principle. In view of these various considerations, the importance of the thyroid principle as a therapeutic agent is constantly on the increase.

Delusions of Grandeur in General Paralysis of Children—Barbouneix (Rev. Mens. des Mal. de l'Enfance) says paralytic dementia is of very infrequent occurrence in childhood and adolescence, and at this time of life chiefly attacks idiots and imbeciles. The course is a far slower one than in adults, but remissions are uncommon. The onset of the disease interferes with the physical and sexual development of the patient. While delusions of grandeur are not common in children, they are not as rare as usually stated, occurring in 12-14 per cent. of the cases of juvenile paralytic dementa. They are characterized, as a rule, by the silliness and childishness of the concepts: the patient will say, for instance, that he is enormously rich, for he owns 25 cents, or 500 monkeys. Outside of general paralysis, delusions of grandeur in individuals under twenty years of age occur only in dementia precox.

Juvenile Physiological Albuminuria.—Ullmann (Berlin. Klin. Woch.) examined the urine of 42 small children and school girls between the ages of two and a half and thirteen years. These children were supposed to be perfectly healthy, and for the most part were well nourished, and all were subjectively well. Fourteen, of 33.3 per cent., however, had albumin in their urine without any other evidence of nephritis, and on the basis of this experience Ullmann suggests that this condition must be considered as a more or less physiological manifestation of early life. In most instances the tendency is outgrown, but when it is found in adults it must be regarded as the persistence of this early condition. He therefore does not agree with Leube in regarding the albuminuria of puberty of this author as a disease of development with a well characterized clinical picture, and also does not consider that it should be called orthotic albuminuria, but rather that the condition should receive the name of juvenile physiological albuminuria, and be differentiated as such. This diagnosis naturally can be made only after long-continued and careful observation. Treatment is superfluous, for in most cases the tendency disappears as the individual grows up, and in the others it persists in spite of all therapeutic efforts. It is without effect on the patient's health or length of life, and its presence need not be apprehended by insurance examiners.

Ptomaine Poisoning from Mutton with Marked Bradycardia.—Bryson, Britsh Medicol Journal, reports the case of a farmer of thirty-nine years, whose symptoms began some three hours ofter he had eaten the mutton, the weather being warm and sultry but the meat being all right so far as its appearance was concerned. Several other who had partaken of the same meat were attacked, though less violently. The symptoms were the usual ones of gastroenteric irritation, vomiting, diarrhea, tympanites, and some abdominal tenderness. Later cramps in the extremities were added. The pulse ran down to 48 and was regular. The breath had a peculiar fetid odor. The symptoms lasted in all over five days and recovery ensued.

A Possible Explanation of Late Return Cases of Scarlet Fever.—Habgood (Brit. Med. Jour.) notes that every physician responsible for the discharge of scarlet fever patients from isolation hospitals is beset with the difficulty of knowing when they are free from infection. The time having not yet arrived when he can, as in the case of diphtheria, call in the aid of

the bacteriologist, he has to be guided by ordinary clinical examination. Formerly disquamation was the guide; when that was completed the case was discharged. Of recent years it has been recognized that where return cases of scarlet fever occur the discharged patient will be found to have some purulent or mucopurulent discharge. While admitting the impossibility of being sure that all inflammation has ceased in the upper resiratory tract, the author is inclined to believe, from observation at different hospitals in the last two years, that cases are sent out free from any nasal discharge and not infectious, but do again become infectious by the occurrence of an ordinary attack of nasal catarrh, which causes some remaining quiescent scarlet fever germs to renew their activity. An analogy may be found in the case of one who sits in a warm room with a current of cold air playing on his neck. He may get an attack of acute nasal catarrh, and he may become infectious to others. The germs that caused the catarrh were already in his nose, but dormant and able to become active only when an interference with the nasal circulation was set up by the cold air driving on to the warm skin. Habgood thinks it may be argued that the scarlet fever convalescent causing a "return case" has in some instances left the house, not in an infectious state, but owing to the change from a healthy, open-air life and freely ventilated wards of a hospital to the stuffy and ill ventilated rooms of a cottage he has become more than usually liable to nasal catarrh—has, indeed, suffered from such an attack and is thereby again made capable of conveying scarlet fever infection.

The Hydrochloric Acid Treatment of Gout—Falkenstein, Berliner klinische Wochenschrift, reports on the results of five years' application of his hydrochloric acid therapy in gout. This is founded on his belief that in gout there is a hereditary abnormality of the gastric mucosa involving the fundus glands and causing diminished hydrochloric acid secretion. The method consists in the continuous administration of considerable quantities of concentrated pure hydrochloric acid, which is given well diluted after meals. The author himself has taken during more than five years without any interruption 50 to 60 drops of the concentrated acid without any untoward effects, and with very great relief to his gouty symptoms. He has treated 390 cases of the disease and says that the patients may be divided into three groups. The first category comprises patients who have had the disease for only a few years and who accordingly have only moderate uratic deposits. With these the hydrochloric acid treatment is usually very effective and a permanent cure is possible. The second class includes cases of chronic typical or irregular gout in which in the course of years very considerable deposits and tophi have formed. These patients also experience great improvement in the general condition and cessation in the progress of the disease. Further attacks are not altogether prevented, but are usually not severe. The acid is effective only in preventing new deposits and does not cause solution of those already present. In the third group he places the severest cases of chronic gout, and patients of this type apparently benefit but little by the use of the acid. The author also recommends the addition of from 2 to 400 grams of crude hydrochloric acid to a bath tub full of warm water as an efficient means of promoting cutaneous activity in gouty patients. The patients should stay in the bath about ten minutes and repeat it at intervals of one or two weeks.

Thyroid Disturbances Caused by Iodine Intoxication.—Warschauer, Berliner klinische Wochenschrift, reports an unusual instance of intoxication apparently induced by potassium iodide. The patient was a woman 28 years of age who came under another physician's care on account of a chronic eczema of one leg. This was considered as being syphilitic in nature and inunctions of blue ointment and potassium iodide were administered off and on during four weeks. The patient then began to suffer from great weakness and an erythema appeared over the entire body, the face became edematous, there was loss of appetite, violent diarrhea, subnormal temperature, and a pulse of 100-120. At this time she came under the author's observation and the potassium iodide was stopped and the diarrhea checked with opium. The condition continued to grow worse, however; the skin became very dry and scaly, the hair fell out, the emaciation became extreme, the loss of weight amounting to sixty pounds in seven weeks, and a consultant made the diagnosis of Addison's disease. The pulse could not be counted, at times there was delirium, bed sores appeared, and the urine became albuminous. Earlier in

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ill. illness the administration of thyroid tablets had been tried, but had been given up owing to cardiac distress. Now, as a last resort, this remedy was again resorted to, later on supplemented by sodium phosphate. At the end of eight days the improvement was very perceptible and at the end of about four months the patient's condition was practically normal in all respects. The author regards the case as an instance of thyroid disturbance due to intoxication by potassium iodide.

The Minimum Albumin Requisite.—Forster, Munchener medizinische Wochenschrift, in discussing the subject of nutrition, says that it is coming to be realized that there is a danger in reducing the albumin intake to the minimum at which nitrogen balance can be maintained. In addition to albumin, fat, and carbohydrates the human body requires for the growth and maintenance of its organs a sufficiency of other substances such as the inorganic salts. In food stuffs these are found in combination with albuminous bodies or in close relation with these, so that if the amount of proteid ingested is greatly reduced there is also risk of impairing nutrition through deficiency in salts. Furthermore, the breaking up of albumin in the body results in the formation of certain essential substances such as the digestive ferments, protective bodies, internal secretions, etc. It has been proved for some of these, and it is probably for the others, that their production is in proportion to the splitting of albumin in the body, and it is therefore to be expected that with low albumin metabolism disturbances in health may result from deficiency in such bodies. Until the conditions underlying both of these processes have been more fully elucidated it is desirable from the standpoint of general physiology and hygiene to maintain an active proteid metabolism and not to reduce the albuminous food stuffs too low.

Miscellaneous.

Simple Suggestions for the Prevention of Grip and Pneumonia.

Influenza and pneumonia are now extremely prevalent throughout the land. It was recently estimated in New York City there were over 26,000 cases; in Baltimore, 40,000; in Pittsburg, 50,000, and the death rate was correspondingly large.

The report of the New York City Health Board for December also showed that there were 1,202 deaths from pneumonia, many of them beginning with an influenza. In addition to this, there were 126 deaths from influenza without pneumonia.

It, therefore, seems a fitting time to say something about the preventive treatment of these perilous diseases and the value of the following—among other rules recently suggested to the community at large by Samuel G. Tracy, M. D., New York, in a communication to the New York Times—will be generally conceded:

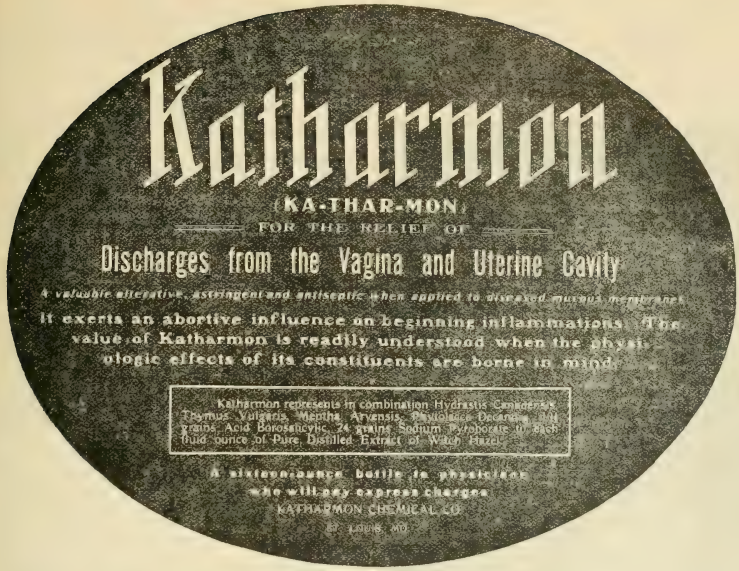
"Keep Mouth, Teeth, Tonsils and Nose Clean

"It is necessary," continued Dr. Tracy, "to keep the mouth, nose, tonsils, etc., clean, because the mucous membrane of these parts, especially the tonsils, is not infrequently the port of entry of the germs of several infectious diseases, as influenza, pneumonia, and acute rheumatism. The little depressions in the tonsils are a favorite place for these germs to lodge; when the tonsils are inflamed and the vital resistance of the body lowered from any cause, these germs are taken into the system, circulated in the blood, and multiply with great rapidity. To prevent their development, it is necessary to antiseptically clease their breeding places and keep them clean, especially if one spends a considerable time in the rooms of those who have influenza or pneumonia."

As a wash for the month and teeth, or gargle for the tonsils, a tablespoonful of Pond's Extract of Hamamelis Virginica in a half-glass of warm water will be found very agreeable and effectively antiseptic—not so much so, perhaps, because of its immediate destruction of bacteria, as by reason of its astringent and sedative action on inflamed areas, thus making sensitive and susceptible tissues less favorable locations for the growth and propagation of germ life, all of which also applies to the following combination as a spray for nose or throat:

℞ Sodii Bicarb.
Acidi Borici.....ää drachms ii
Pond's Extract.....ounces iss
Aq. distil.....q. s. ad. fl. ounces iv

The wash and spray should be used daily after breakfast and before retiring at night—oftener if much exposed—and to avoid the toxic dangers of substitutes adulterated with wood alcohol and formaldehyde, only Pond's Ex-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A valuable alterative, astringent and antiseptic when applied to diseased mucous membranes
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Mucous Plaques; Prophylaxis and Treatment.

By Edward H. Skinner, M. D.
St. Louis. Mo.

The proper care of the mouth is a matter of importance in the control of the secondary symptoms of oral syphilis, especially in view of the fact that the average luetic patient has all too little regard for any hygienic measure. In anticipation of the early onset of the secondary oral patches it should be the duty of the physician to instruct his patients as to the proper prophylactic measures to be adopted that the severity of these symptoms may be ameliorated.

The first thorough examination of the new luetic case should include the careful inspection of the mouth and teeth. If we feel incompetent to judge of the condition of the teeth we should refer the patient to the dentist. The roughened edge of a tooth, or an unfilled cavity, may serve as an irritant in establishing a mucous patch. The dentist will instruct the patient as to the proper care of the teeth. The cleaning of the teeth after meals, to avoid the accumulation of debris, should be impressively taught. We should also realize that salivation may best be avoided by the attention to the teeth and gums.

Anticipating the secondary symptons we usually attempt to promote the general health of the individual by tonics and bodily hygiene. We should also try to increase the cellular resistance of the buccal membrane by local measures. It may be well to consider means to this end at this time. Bartholow considers a number of drugs to be used locally. Hydrastis canadens is recommended as a stimulant to mucous membranes. It also has a valuable astringent quality and promotes the salivary secretions. Hamamelis virginica is also valuable in advancing the prophylactic powers of the mucous membranes. Thymol and menthol have valuableproperties, influencing fermentation and putrefaction, and also serving as antiseptic They allay the sensibility of the mucous membranes and arrest the retraction of the gums. Boric acid has decided antiseptic and deodorant properties. This acid was an important factor in the original Lister antiseptic method. Being very mild, it may be used in varying strengths without danger. Glycerine has a beneficail effect on all mucous membranes, inasmuch as it dehydrates and soothes any tissues it may touch Combination of the above remedies may be made that will serve not only as valuable prophylactics, but also as curative agents in any inflammation of the mucous membrane. But we should remember that the application will avail little if the patient does not assist their action by the careful cleansing of the mouth and teeth at frequent intervals, not being afraid to use the greatest remedy of ala—pure water.

When once the mucous patch has asserted itself we should try to avoid the ulcerting and sloughing process that accompanies the oral syphilide. It is at this time that our prophylactic measures show their true worth. The mucous patch rarely spreads in the clean mouth. Foul secretions and decomposing food stuff favor the ulceration of the paces, The best local application for a patch is the silver nitrate pencil. One application a day will usually suffice. An antiseptic mouth-wash should beused by the patient about every three hours during the day. Among the varous combinations on the market today one will find that Katharmon offer advsntages. The inlernal administration of mercury should be pushed. If we find that the patches persists in spite of the above treatment we should try a short regime of the iodides. Very frequently the stubbornness of oral features of syphills may be due to the mercury treatment. It is in these cases that the withdrawl of the metal and the substitution of the iodide, with the use of remedies to cure the ptyalitte symptoms, will afford relief. —The Medical Mirrow.

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tract (the standard among distillates of Hamamelis for over half-a-century) should be prescribed.

Post Hemorrhagic Anemia.

The anemia which follows the hemorrhages of trauma, gastric or intestinal ulcers, severe epistaxis, child birth, profuse menstruation or hemorrhoids presents a clinical picture that is so well known that it requires no description.

Examination of the blood immediately after a severe hemorrhage usually shows no apparent change in its number of corpuscles, for the portion lost withdrew the blood as a whole, and the portion remaining in the body, while decreased in volume, will be found to contain a normal ratio of the fluid and cells. Shortly after a hemorrhage, however, the tissues of the body give up large quantities of fluid to restore the necessary volume of the blood and a condition of true hydremia ensues. Examination of the blood three or four hours after a severe hemorrhage, therefore shows a very marked oligocythemia. Reconstruction must now take pace and the response to the bodily demand is sometimes remarkably prompt, but in most instances it is a hard up-hill fight. This is to be expected, for the disproportion between the cells and the fluid elements of the blood, and the essential depression of all vital functions, makes recuperation a difficult process at best.

Much can be done, however, to assist the body in its efforts to restore normal conditions. The first and most essential requirement is absolute rest in a prone position. In some instances, it may be necessary for a few days to have the couch or bed tilted so that the patient's head shall be lower than the feet. Sudden movements or a sudden rising to an upright posture must be strictly interdicted as these are always liable to produce a fatal syncope. Following severe hemorrhage, the blood pressure is always lowered, and even if a certain degree of tension is apparently restored, it is very unstable, and may be lost instantly with all of the resulting dangers on the heart and central nervous system.

Another precaution to be taken is to frequently change the patient's posture from one side to the other. The hydremic state of the blood, and the loss of blood tension predisposes to gravitation oedema in the lungs and other organs, and the simple procedure of changing the patient's position often avoids annoying

TABLE OF CONTENTS FOR FEBRUARY, 1908.

Original Communications.

Achylia Gastrica, by H. B. Kincaid, M. D., Memphis, Tenn. 59
Nephritis, by H. E. Mitchell, M. D., Birmingham, Ala 62
Excesses of Modern Times and Their Relation to Release, by Marion McH. Hull, M. D., Atlanta, Ga., 63
Adenoids: What? Where? When? and How? by Albert J. Caldwell, Amarillo, Texas, ... 66
Abscesses of the Liver, by W. A. Bryan, A. M., M. D., Nashville, Tenn. 67
Spasmodic Croup in Children, by W. T. Grove, M. D., Eureka, Kansas 70
Cases of Head Injury with Operation, by H. Stuart MacLean, M. D., Richmond, Va., ... 73
Contribution to Local Anesthesia, by L. S. Oppenheimer, M. D., Tampa, Fla. 76
Clinical Gonorrhoea, by Thomas W. Murrell, M. D., Richmond, Va., ... 77
The Menopause, by Albert D. Parrott, M. D., Kinston, N. C. 80
Some Suggestions on Three Essential Points in the Treatment of Typhoid Fever, by Herman Hawkins, M. D., Jackson, Tenn., ... 81
Truneck's Serum in a Case of Arterio-Sclerosis, by C. T. St. Clair, M. D., Tazewell, Va., ... 83

Editorial.

The Tri-State Medical Association of the Carolinas and Virginia 85
The Campaign Against Tuberculosis 85
Influenza 86
Health Officer for South Carolina 86
A New Medical Firm for Charlotte 86
Southern Medical College Association 87
The Bacteriology of the Blood in Typhoid Fever. 87
Dr. Lawrence Edward Holmes 88
Review of Southern Medical Literature, ...88-92

Book Notices.

Proceedings of the American Medical Editor's Associan, by the Secretary, 93
Manifesto de la Komnuista Partie. The Communist Manifesto, by Karl Marx and Frederick Engels 93
Tuberculosis Congress 93
Applied Physiology, by Fredick A. Rhodes, M. D. 93
Funeral Directors' Association 93
Cosmetic Surgery, by Chas. C. Miller, M. D. 93
The Every-Day Disease of Children and Their Rational Treatment, by Geo. A. Candler, M. D. 93

Abstracts.

Tubal Abortion 93
A Case of Swine Erysipalis in Man Cured by the Use of Serum 94
Renal Decapsulation in Eclampsia 94
Tubercle Bacilli Entering by Way of the Intact Skin 95
Acute Pulmonary Edema 95
Remarks on Appendix Abscess 95
Suppuration in the Region of the Pharnyx 95
Genitourinary Tuberculosis 96
Gastric Conditions in Wasted Infants 97
The Reaction of Bordet and Gengou in Respect to the Streptococous in Scarlet Fever 97
Dangers and Treatment of Placenta Praevia 97
Mucocele of the Accessory Nasal Sinsuses 97
Dysentery 98
The Prognosis in Operation for Vulvar Carcinoma .. 98
A Salt Free Dietary in the Treatment of Scarlet and Acute Nephritis. 99
The Time of Leaving Bed After Normal Labor. 99
Goitre and Cardiac Diseases 99
Haemolysis Through Serpent Venom 100
When and How Should an Injection of Antitauic Serum be Given? 100
The Genesis of Albuminura 100
The Action of Paucrea in Carcinoma 100
The Results Obtained in Tuberculosis Sanatoria. 101
Potassium Permanganate Solution for Fissure of the Anus 101
Extract Mistletoe for Haemorrhage 101
Hemophilia Transmitted Through the Male 101
Methylene Blue for Cracked Nipples 102
Clinical Observations on the Origin of Fever 102
The Differentiation of Transudates from Exedates 102
Acute Poisoning After Oil Enemas 103
Compresses Left in the Abdomen---Prevention 103
Breast Treatment---After Treatment 103
Pircenta Previa—Treatment in Private Practice 103
The Technique and Significance of Wasserman's Syphilis Reation 104
Functional Tests of the Gastric Function 104
Twenty-five Conservative Cesarean Operations Without Maternal Mortality 104
Abortion 105
Some Considerations in the Use of Cardiac Tonic .. 105
Typhoid Insufficiency and Noctural Enuresis in Children and Adults 105
Delusions of Grandeur in General Paralysis of children 107
Juvenile Physiological Albuminuria 107
Ptomaine Poisoning from Mutton with Marked Bradycardia 107
A Possible Explanation of Late Return Caesar of Scarlet Fever 107
The Hydrochloric Acid Treatment of Gout 108
Thyroid Disturbances Caused by Iodine Intoxication 108
The Minimum Albumin Requisite 110
Alcohol in Relation to Medicine 116
Plural Effusion 116
Cancer Recurrence 118
Action of the Gastric Juice Upon Starch 118
Bacterial Conditions of the Faeces of the Infant 119
Treatment of Cancer of the Larnyx 119
Appendicostomy in Chronic Dysentary 119

and serious complications.

Considerable quantities of water are always necessary after hemorrhage, but it should never be given in large amounts at any one time. Two or three tablespoonsful at a time by the mouth every few minutes is much more beneficial than to allow a patient to drink to satiation. Excessive thirst is always soon controlled by small enemas (one pint) of saline solution, as warm as can be borne, repeated every three or four hours. These also serve admirably to very materially raise arterial tension. It is no uncommon thing to observe complete anuria for even twenty-four hours after severe hemorrhages, but the warm saline enemas soon correct this condition.

Feeding is one of the most important details in post-hemorrhagic treatment. Liquid food should be used in preference to solids for obvious reasons, and may consist of milk, beef extracts, white of eggs, etc. Small quantities should be given at short intervals, as it must be remembered that the digestive function is always more or less depressed and can only do a portion of its usual work. A good reliable hematic is early necessary, one that can materially hasten hematosis without endangering the digestive and assimilative functions in any way, shape, or fashion. Pepto-Mangan (Guide) is one of the most dependable remedies of this class and its hematopoietic properties are well known. Under its use the cellular elements of the blood are rapidly increased, and the whole physical condition is greatly improved. The various organs resume their functions and the distressing and dangerous effects of hemorrhage are safely and properly overcome.

American Medical Association.

Is there, then, nothing good about the American Medical Association?

Yes, there are any good things about any association of people of similar aims. To bring together a large number of people following any one avocation, for the purpose of mutual instruction and harmonious action is a good thing.

It applies to doctors, as well as artisans. The general practitioner, the general surgeon, the specialist in chronic diseases, the specialist in some one branch of surgery, all coming together in convention or society meeting, presenting papers on various topics in which they are interested, is extremely beneficial. Such information is vastly superior to the information usually gained in medical colleges.

To bring all such people together has a tendency also to dissipate any personal jealousy, hostility and bitter competitive spirit. All animosity between people is tempered, at least, by acquaintance. Just so far as the American Medical Association aims to bring about a better acquaintance among the physicians and surgeons of this country, to scatter information, to devise means of assisting society in its natural evolution, just so far their work is a good one.

They could do a great many good things if they chose to do so. They could make themselves very effective in stamping out syphilis and other venereal diseases. There is no sense whatever in these diseases continuing to be a scourge in the land. They are spread by people who naturally come under police inspection, and could be easily regulated by effective police organization. As it is, nothing whatever is being done except in a few large cities. Even this little was not originated by the American Medical Association, nor are they lending any moral support to such reforms.

Much could be done by such an association of physicians in popularizing information on sex relations, that every boy and girl should know something of.

Much could be done in spreading information concerning the proper selection of food and the best methods of preparing it.

Much could be done in the sanitary regulation of the home. Some little is being done along this line, and to the credit of the American Medical Association.

Indeed, there is a great field of usefulness for such an organization, and no doubt in time this tremendous organization will use its power in the direction of humanizing and civilizing tendencies.

Again, an association of this sort can raise the standard of their profession by requiring of the members of the society certain courses of study or original research, conferring upon members degrees or diplomas indicative of attainments and special work.

It is quite important that various members of the profession should know where the best talent and the best technical skill is located, in order to avail themselves of counsel and assistance in times of need. By associating themselves together in this manner the excellence of their work as a whole would be raised, without doubt. Such a procedure is not only commendable, but is without doubt the

duty of the medical profession, in order to bring the greatest possible benefit to society.

But when the American Medical Association attempts to perfect an organization by destroying other members of the profession who do not happen to agree with them on points of medical ethics, and medical and surgical treatment, then the organization becomes pernicious and dangerous to the best interests of society. When an association of doctors attempts to procure legislation making obligatory upon other members of their profession any method of treatment or mode of doing business, they have over-stepped the legitimate function of medical society.

A medical society has undoubtedly the right to produce if they can superior physicians and surgeons who by actual practice demonstate the superiority of their work, and thus outrun competitors, or drive their competitors out of the profession by fair and open demonstattion of the incompetence of those members of the profession with whom they disagree. If one can cure disease and another man cannot, this fact will soon appear in results, and no set of men is quicker to appreciate this fact than the average layman who must pay the bills, who must bear the bereavements of malpractice.

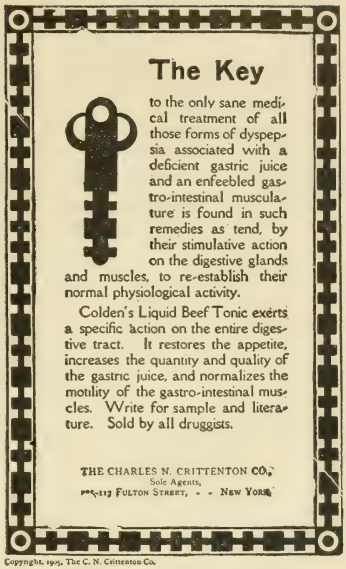
No, I would not for one moment discourage the organization of the medical fraternity into societies. I would be glad to see a great medical society which should include all honest practitioners of medicine or surgery, all men who are trying in any way to prevent or heal disease. Such a medical society could make itself a great beneficence. There is no need whatever to copy the methods of the trusts, or to resort to the tactics of the modern financial pirate. Such a society has only to go forward, making its members more worthy, more competent, allowing the demonstration of the sick room and the hospital to convey their argument to the people.

A medical society that has come together mainly, or even partly, to exterminate competition, to legislate out of existence other people who by other methods are trying to become healers, such a medical society is no better than an ordinary gang of cut-throats, have no higher motives than the meanest trust that ever disgraced modern civilization.

"Live and let live," should be the motto of a medical society. Let deeds, rather than words, demonstrate fitness. Let the common sense of the people be the prohibitive legislation upon which they rely. Let their usefulness to society decide who are the real healers and who are the charlatans. Let the praises of those who have been cured or healed in any way be the corner stone and bulwark of their organization.

Organize? Certainly! But thieves can organize as well as philanthropists. Organization does not sanctify a bad motive. Nor does organization condemn a good motive. It is the motive behind any organization that makes it bad or good.

It is not the organization of the American Medical Association to which I object, but it is the main motive that actuates it, the central idea that has given it existence, and that puts into its hands the dangerous weapons which ought to condemn it in the minds of all fair-minded people.—Columbus Medical Journal.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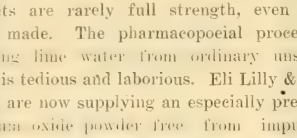
Making and Keeping Lime Water Official Strength.

Lime water is a preparation of considerable medical importance. While it is comparatively easy to make, it is not so easy to keep at standard strength owing to its tendency to deteriorate. Physicians and pharmacists should remember that lime water is a solution

of calcium hydrate Ca(OH)2 an unstable preparation which is quickly altered by the absorption of carbon dioxide which is always in the atmosphere to a greater or lesser extent. The atmospheric CO2 is absorbed by the lime water changing the calcium hydrate to Calcium Carbonate (CaCO3) which being insoluble is thrown down. Thus the lime water constantly looses strength unless there is an excess of calcium hydrate in the bottom of the container to replenish. The lime water tablet which is so convenient for making lime water is very unreliable because the calcium of which it is composed, when fresh, is gradually changed to calcium carbonate through exposure to the atmosphere and lime waters prepared from the tablets are rarely full strength, even when first made. The pharmacopoeial process of making lime water from ordinary unslaked lime is tedious and laborious. Eli Lilly & Company are now supplying an especially prepared calcium oxide powder free from impurities present in ordinary lime and of a physical condition favoring immediate hydration and rapid solution.



This is a fine powder in hermetically sealed vials. Each vial contains a quantity sufficient to make one gallon of lime water of strictly U. S. P. strength, by following directions. By using Lilly's Lime no decanting is necessary and all official lime water can be prepared in one-half hour's time as against 24 hours required using ordinary lime. Lime water so prepared has been submitted to inspectors who have found it meeting federal and state requirements. Ordinarily it is better not to make a larger quantity of lime water than can be used in a reasonable length of time, and it is important that the excess of lime be left in the bottom of the stock bottle to supply deficiency caused by the formation of calcium carbonate described above.

Alcohol in Relation to Medicine.—Finlay, (Scottish Med. and Surg. Jour.) gives the following advice: Regard alcohol as a drug, a very valuable and dangerous one, and put it in the same catagory as morphine, strychnine atropine, and the like. If you look upon it as a drug you will probably not go very far wrong. Prescribe it with due sense of responsibility and not after a routine method, having regard to each case on its own merits, and considering such points as the state of the pulse especially, the age, previous health and habits, and the severity and period of the attack. Young patients of good constitution are better without it, except in presence of heart failure of crises of some kind. Use the smallest doses possible, and give strict injunctions as to time and mode of administration. Watch its effects carefully, and omit it when the critical condition has passed. Be especially sparing in chronic diseases, where in most cases it does not the slightest good, but only leads to waste.

Plural Effusion.—Barr, Lancet, states that the aetiology of each particular case of pleurisy should be settled as far as possible, it being most important both as regards treatment and prognosis. Every case is due to some microorganisms or their toxines, even those following injury or cold, and these secondary to chronic illness, such as nephritis. The vast majority of cases are tuberculous but a number are rheumatic or due to pneumococci, streptococci, staphylococci, or colon, typhoid, or influenza bacilli. Many of these organisms are found in the serous effusion, but not so the tubercle baccillus. If there is any evidence of tuberculosis in the lungs or elsewhere, the question may be considered settled. Failing this, the fluid should be centrifuged and the sediment examined for tubercle bacilli and cells. If the case be tuberculous the cells will be mostly lymphocytes; if not, the polymorphonuclear cells will predominate. A blood count is of assistance, as in tuberculous pleurisy there is no leucocytosis, whereas in that associated with other processes there usually is. A hemorrhagic effusion is usually associated with tuberculous or malignant disease. A specific gravity of 10-8 is usually taken to be the dividing line between exudates and transudates. Dry pleurisy is frequently tuberculous, but not necessarily so. In pneumococcal pleurisy there is usually a large amount of fibrin, whether there be much fluid or not. Cases of dry pleurisy require very little treatment except some counter irritation, a diaphoretic, a purgative, and perhaps a sedative to relieve pain, or some strapping of the chest to limit the amount of movement. In cases of pleural effusion the writer was formerly much more chary of early tapping than at present; in tuberculous cases it caused vascular turgescence of the lung and dissemination of the tubercle bacilli. But since he began replacing

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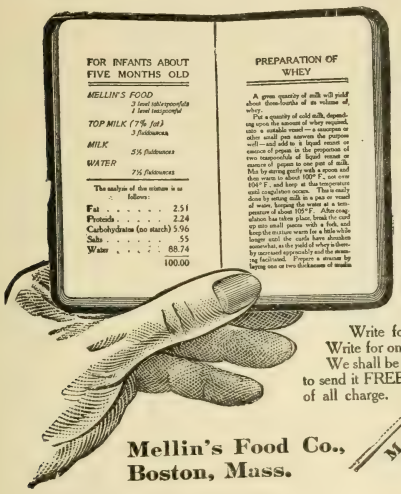
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MELLIN'S FOOD
3 level tablespoonfuls
1 level teaspoonful
TOP MILK (7% fat)
3 fluidounces
MILK
5½ fluidounces
WATER
7½ fluidounces
The analysis of the mixture is as follows:
Fat 2.51
Proteids 2.24
Carbohydrates (no starch) 5.96
Salts .55
Water 88.74
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PREPARATION OF WHEY
A given quantity of milk will yield about three-fourths of its volume of whey.
For a quantity of cold milk, depending upon the amount of whey required, take a suitable vessel — a saucepan or other small pan answers the purpose well — and add to it liquid rennet or essence of pepsin in the proportion of two teaspoonfuls of liquid rennet or essence of pepsin to one pint of milk. Mix by stirring gently, and heat to 100° F.; not over 104° F., and keep at this temperature until curd separates. This is easily done by setting milk in a pan or vessel of water, keeping the water at a temperature of about 102° F. After coagulation has taken place, break the curd up into small pieces with a fork, and keep the mixture warm for a little while longer until the curds have shrunken somewhat, as the yield of whey is thereby increased appreciably and the straining facilitated. Prepare a strainer by having one or two thicknesses of muslin

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the withdrawn fluid by air, he now removes the whole of the effusion, even in tuberculous cases, at an early stage with perfect impunity. He now recommends the complete withdrawal of the effusion in all cases, but before any great negative pressure is established, and before the patient feels any discomfort, he stops the siphon and introduces about an equal quantity of air to the amount of fluid withdrawn. The siphon is then reestablished and the withdrawal of the effusion completed. When all the liquid is withdrawn 4 c.c. of adrenalin solution (1 in 1,000) diluted with 8 or 10 c.c. of sterile normal saline solution, is injected; this contracts the blood vessels and lessens the secretion, but its effect is not very prolonged, especially if any great negative pressure exists. If necessary, more sterile air is then introduced, so as to make the total amount equal to one half or three fourths of the bulk of the fluid withdrawn. The larger quantity of air is introduced in tuberculous cases. By this method the patient suffers no discomfort except from the slight thrust of the trocar. The siphon is preferred to the aspirator because the force of the suction can be readily regulated, and, since the tube only reaches to a receptacle on the floor, practically the negative pressure never exceeds one pound to the square inch; this force is greatly exceeded by the aspirator, and the greater the negative pressure the greater the risk of secondary hyperæmia or oedema. It is an advantage to introduce a manometer in the air tube; the danger of producing a positive pressure in the pleura can thus be avoided. Of course, all aseptic precautions must be taken. Empyema is a disease which has passed entirely into the surgeons' hands; they think only of free drainage and are careless whether the lung ever expands again or not. The author recommends that a local and not a general anæsthetic be used. A free incision should be made in a very dependent spot, about the eighth or ninth intercostal space, in a line with the lower angle of the scapula. An assistant should compress the side so as to drive out the pus and allow as little air as possible to enter. No drainage tube should be introduced, but a piece of oiled silk should be placed over the wound to act as a valve and keep the air out. The patient should lie on the affected side and should be well strapped to prevent movement. The variety of microorganisms in the pus should be ascertained and an appropriate vaccine used. Unfortunately Estlander's operation is often necessary, due to early mismanagement.

Cancer Recurrence.—Ryall, Lancet, as the result of his observations, has concluded that carcinoma is highly infectious disease. Not that there is any evidence to support the fact of its communicability between one person and another, but that once an individual becomes the subject of cancer there is not only the liability of its spreading by a well defined infective process, but also in those cases where the surgeon attempts to remove the disease there is a risk of reinfecting his patient from the growth which he is endeavoring to remove. Cancerous infection of wounds is therefore of comparatively frequent occurrence, but unless the infection manifests itself fairly early the proof is easily overlooked. Cancer infection during operation is responsible for many of the cases of recurrent nodules in the site of operation wounds, and suture hole infection is exceedingly common. Cancer infection is probably the reason why chronic carcinomatous growths so frequently run a very acute course after attempted operations. In the parent growth the cells are more or less encapsuled in fibrous tissue, but some cells escape during operation and find a resting place in the wound which is comparatively unprepared to meet and to resist the invasion. The question of cancerous infection of wounds during operation is a real and exceedingly grave danger and one of the utmost importance. Moreover, it is danger that cannot be too carefully guarded against, and any failure to avoid it has an important bearing on the question of cancer recurrence.

Action of the Gastric Juice Upon Starch.—Roger and Simon, La Presse Medicale, conclude from their studies that throughout the digestive tract, from the mouth through the intestine, starch undergoes modifications constantly from the action of the various fluids with which it meets. The saliva does not act upon it alone in the buccal cavity, but again in the intestine, where its action is reinforced by that of the pancreatic juice. The gastric juice takes its turn in the production of chemical and physical transformations of the starch; it plays an important part in the preparation. It continues the action commenced by cooking and gives rise to soluble starch and dextrine. If it is incapable of the production of sugar of the starch for its ultimate transformation

Bacterial Condition of the Faeces of the

Infant.—Nobecourt and Rivet, La Semaine Medicale, state that the microbic flora of the digestive canal of an infant in a normal condition is very poor at the level of the stomach and duodendum, and gradually grows richer as the rectum is approached. In the upper segments of the intestine aerobic, or facultative anaerobic, germs predominate; in the lower segments, particularly the large intestine, the aerobic species become rare and the anaerobic predominate. The bacterial flora of the faeces is practically that of the large intestine, which differs markedly from that of the other segments. But as the composition of the faeces is partially determined by the digestive processes which take place in the stomach and small intestine, the flora is modified when these processes are interfered with. Hence the bacteriological study of the faeces can reveal not simply the bacterial state of the colon, but that of the upper segments of the intestine as well. The authors then consider the variations which are found in the flora in diarrhoeal conditions, and also the variations which are found to result from the ingestion of various kinds of food. The therapeutical indications to be drawn from these studies are confirmatory of those suggested by clinical observation, that, when we have to deal with a very liquid and abundant diarrhoea associated with an aerobic flora, albuminoid elements should be introduced to the food, while, when the diarrhoea is foetid and less abundant, generally associated with an anaerobic modification of the flora, a starchy diet should be given and an albuminoid is contraindicated.

Treatment of Cancer of the Larynx.—Sendziack, Revue Hebdomadaire de Laryngologie, D'Otologie et de Rhinologie, analyzes 982 cases of surgical intervention on account of cancer of the larynx and concludes that the surgical treatment is at present the more rational; 20 per cent. of the 982 patients were cured. Deaths have greatly decreased since 1888, a decrease which he ascribes to the performance of the operation at an earlier period and the improvement of the operator's technique. When the various procedures are compared, none before 1888 being considered, the method of laryngofissure is found to be credited with 50 per cent. of cures, the endolaryngeal method with 46 per cent., partial or unilaterial resection with 23 per cent., and total resection with 22 per cent., results which would seem to indicate that laryngofissure was the preferable method.. But when recurrences are taken into account another story is told; recurrences were 22 per cent. after laryngofissure, 30 per cent. after partial or unilateral resection, 33 per cent after removal by the endolaryngeal method, and only 16 per cent. after total resection. He considers total resection to be certainly indicated when the cancer is very extensive or greatly advanced and when the disease has recurred after laryngofissure.

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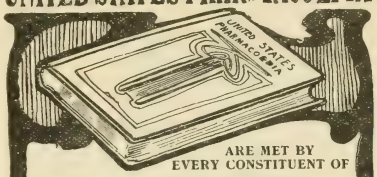

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Appendicostomy in Chronic Dysentary—Pottinger, Lancet, states that the most striking result of this operation is the facility with which the irrigation of the large bowel can be effected. It has also been employed in chronic constipation for the administration of suitable medicinal remedies having a local action, while its use has been suggested in complicated cases of enteric fever and in cases requiring gastrostomy as a substitute for the graver operation. It is in dysentery, and more particularly the chronic variety, that the operation seems in some cases to give very gratifying results. The author records the history of a man of twenty-seven years who had been ill for six weeks, having as many as twenty

daily passages of mucus and blood. The patient did admirably and a perfect cure resulted. The author calls attention to a few technical points as illustrated by the progress of this particular case. The catheter was at first removed between each occasion of irrigation, but it was found that even in twenty-four hours the wound closed so, owing to the growth of granulations, that it was somewhat difficult to introduce it. A soft catheter was used and was left in the opening, being removed each day, of course, to be cleaned. Care was taken never to have a big "head" of fluid and no attempt was ever made to dilate the bowel, free passage through the rectal tube obviating this, which in an extensively ulcerated condition of the gut would have been a true danger.

The Automatic Rhythm of the Heart.—Gossage, British Medical Journal, comments on the prolonged controversy during the last twenty-five years as to the origin of the automatic power of the heart to beat rhythmically and reviews the various stages of the discussion. He notes that the arguments adduced hitherto are on the whole rather in favor of the venous origin of the stimulus, but declares that they are not incompatible with a muscular fiber source. It has been disproved that every cardiac muscle fiber is capable of supplying its own stimulus and beating independently. It is certain, however, that the muscular fibers possess the properties of contractility, conductivity, and tonicity, and it is probable that these are experienced during the normal beat of the heart without the intervention of the nervous tissue. It is also certain that all the muscle fibres are not capable of building up a stimulus for themselves, but there is evidence to show that certain fibres of peculiar structure possess this property. While certain neurogenic theory, especially the response of the quiescent heart to the stimulation of the facts seem to find their explanation in the accelerator nerve, there are others pointing as strongly to the hypothesis that the heart beat is purely muscular; and in the face of Engelmann's direct observations on the great veins in frogs and the occurrence of pulsation in the embryo heart before development of nervous elements, it seems to me that the complete myogenic theory has the more weighty evidence in its favor, and should be accepted until stronger arguments are brought against it. The conception that the rhythmic beat is purely muscular in its origin does not preclude the possibility of the beat being influenced by outside nervous impulses; this would give a sufficient explanation of the large nerve supply to the heart. Attributing the rhythmic power of contraction to the muscle, is, of course, only a very partial explanation of the cardiac beat, the cause of which lies deeper in physico-chemical changes in the cells.

Tuberculous Chlorosis. — James, British Medical Journal, states that when we meet with a case which presents in a more or less marked degree all the ordinary appearances of chlorosis, and which yet on examination of the blood reveals the number of red corpuscles and the percentage of hemoglobin to be practically normal, we are very likely to find in it a history of past or present tuberculous disease. This condition, often occurring in young women, is one which long ago Trousseau recognized and called false chlorosis or tuberculous anemia; and although in recent times, when blood examination has become more of a routine procedure, the coexistence in tuberculous disease of an anemic appearance with a practically normal blood count is quite recognized, it seems that in cases apparently of chlorosis this possible association of tuberculous disease often passes for long unrecognized. Inasmuch as the recognition of such cases is important from the points of view alike of diagnosis, etiology, pathology, and treatment, the histories of three cases of this category are given in detail. In a general way such cases, though more tedious than those of ordinary chlorosis, recover fairly well. But although their general condition may improve, the blood count remains practically the same. It is believed that such cases present in reality an oligemia, that is, a diminution in the total amount of the blood. Trousseau believed that iron should be avoided and placed his reliance on arsenic and general hydrotherapy. The author believes that the condition is one which occurs in individuals who, as the result of hereditary or acquired causes, have given indications that they possess low resistance power to the tubercle bacillus. In what and to what extent this blood effects may be salutary as regards tuberculous lung disease, we can only conjecture. The author's idea is that it may be by inducing an air hunger, and so stimulating lung function and nutrition. Anyhow, when we reflect that the quality of the blood is quite good, we can understand that treatment to improve the health generally rather than the blood specially is what is required.

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Are Our Rights Threatened?

By Dr. H. C. Buck, Friars Point, Miss.

At a recent meeting of our local Medical Society a set of resolutions from the Kentucky State Medical Association were introduced and read for consideration and adoption, the sum and substance of which was that we as a body and as individuals pledge ourselves to use only such remedies in our practice as are recommended and endorsed by the A. M. A. or the authorized agents of that body, known as the Council on Pharmacy.

The section or article of these resolutions that mostly concern those of us who are of the rank and file of the profession reads as follows. "*Resolved*, that we request every physician in Kentucky to procure a copy of the abridged U. S. P. and formulary and be guided by this and the approval of the Council on Pharmacy in their use of medicine." I do not know that the Council on Pharmacy endorse or sanction these resolutions, if they do it seems to me the most stupenduous piece of bigoted egotism it has ever been my misfortune to behold. Who is the great Council on Pharmacy, that the U. S. P. should need their endorsement and approval? Are not the men who revised and compiled the U.S.P, fully as well versed in Materia Medicia and Therapeutics and as able to advise as to the remedies to be used as are those who composed this body. Certainly it would seem so to me. Ever since medicine has been known and men have practiced medicine there have been various sects or schools of medicine radically differing in their ideas and teachings regarding disease and the proper remedy or drug that should be used in the effort to cure disease. In this age we have Alopath (or regulars as we call ourselves) the Homeopath, the Eclectic and many others, each one of which claiming their method the only correct one. While this is not true, it is true there is much that is good in each and much that is worthless in all, while I admit the Council on Pharmacy are doing a good work, they are the agents of the A. M. A. and that body is the official representative of the Alopathic school, hence it naturally follows as a matter of course they do not take cognizance of remedies advocated by other schools.

I believe if there is any man or set of men who should adopt as their motto "Prove all things, hold fast (only) to that which is good" it should be the physician and he should go to the bedside of his patient untramelled by the dictum of any man or set of men but free to use the best means at his command to relieve and cure his patient regardless of the sect or school that recommends the means or remedies he employs. That old saying, the powers that be are ordained of God" does not hold good in every case. I have seen instances where I thought his Satanic majesty had more to do with it than did the supreme being. I have always lived in the south, was born before the war hence I was a rebel and (perhaps) unfortunately for me I have never been *fully* "reconstructed," therefore that rebellious spirit that is in me and will not come out and gets on its hind legs when I know or feel that any man or body of men are infringing on my rights and I deny the right of the A. M. A. or any other body of men to dictate to me what remedies I shall or shall not use, I claim that so long as I comply with the laws of the land in which I live I am accountable only to my God and my patient for my acts toward them, it is not my intention to exploit any remedy or set of remedies. I leave the choice of remedies to each individual physician as he alone should be the best judge as to what is best for his patient. I only plead for freedom, the freedom granted every one in this great county, of our, freedom of thought, of judgment, of action untramelled by the dictum of any man or set of men. *Whither are we drifting*? There is a fight being made on the independent medical journal. In some states an effort is being made to get a law enacted forbidding physicians dispensing their own medicine and compelling them to send all their prescriptions to the druggist. Now the Council on Pharmacy or its great admirers want us to let them say what remedies we shall use. Truly it is a gloomy outlook, if those things come to pass. All independent thought and investigation is killed. The great Council on Pharmacy will think and investigate for us, while the equally great J. A. M. will *dish* out to us such articles as they in their wisdom think we should read, while (to use an expression of one of our forefathers) we can "lie supinely *on our back*" and do as we are told by the bosses. But in contrast to this spirit of bigotry and there is and has been for some time a spirit of liberality and tolerance, one for the other in the different schools of medicine, seemingly an inclination to draw nearer together and accept the good each or all may offer.

This, I think, should be fostered and encourged in every honorable way and I believe I am safe in saying the liberal minded leaders in the profession are doing this and do not hesitate to prescribe remedies from other schools than their own and do not hesitate toendorse them. This is as it should be, but with all due respect to the A. M. A. it does not seem as if the present leaders of that body favor such a course. In adopting these resolutions we virtually agree to wholly submit to the guidance of the Council on Pharmacy in the remedies we shall use. When a physician reaches the age or condition wherein he cannot or will not be guided by his own knowledge and judgment as to the remedy or remedies best adapted to benefit his patient, he has reachthe age when he should feel in duty bound to those who trust their lives in his care to follow Osler's advice and get on the shelf or take chloroform, be his age what it may. While counsel and advice are good and should always receive proper consideration and respect, when it becomes an obligation it is no longer advice. There are very few well informed physicians that are willing to discard a remedy they have tried and know to be good,simply because such remdy is not recommended by the Council on Pharmacy. Long years of experience have taught many of us that a remedy that gives good results in the hands of some may prove very unsatisfactory in the hands of others, again a remedy that is beneficial in treating certain diseased conditions in one person may prove very unsatisfactory in another whose symptoms are seemingly identical, I have often had this experience, hence I say, let the medical profession, especially those of us who are country doctors, remain free and untrammelled in the treatment ot our patients, but let each of us study our cases and study our remedies and do what our honest unbiased judgment prompts us to do, if we have not a sufficient knowledge of drugs and their effects on the system to know what to use and what to let alone we have no right to practice medicine; if we know these things, then we do not need the dictation of the A. M. A. There seems to be a spirit of usurpation and dictation abroad in the land, in all walks in life a seeming desire to curtail man's rights and privileges. To the young men in the profession, those who are at the beginning of life's journey,while I am now near it's close, would say:

"Be not like dumb driven cattle."

be *men*, think, judge, act for yourself, cultivate a habit of independent thought and investigation, guided but not controlled by the study and investigation of the learned men of the profession, jealously preserve and protect your independence, be ever open and ready to receive knowledge regardless as to the source of such knowledge; many valuable truths have come from very humble sources. Take for your motto the words of Thomas A. Kempis, who said, "mark not who said this or that,but mark the words spoken," into your keeping,sooner or later will rest the honor and integrity of our noble profession, make yourselves worthy of the trust, no man can carry your burden. On your shoulders alone it must rest and you alone will be held account able to God and your fellow man for the life you lead. Rest assured you will find it the part of wisdom to. *think* for yourself. Study closely the different theories advanced and judge them on *their* merit *not* on the merit or reputation of the man who advances them.

Open Method Treatment of Epitheleoma on a Muco-Cutaneous Surface.

By W. D. Witherbee, M. D., Professor of Electro-Therapeutics and Skin Diseases, North Carolina Medical College, Charlotte, N. C.

Epitheleoma very frequently makes its appearance somewhere in the line of junction between the skin and mucous membrane. Whether the primary specific cause is that of chronic irritation or not, has not up to the present been satisfactorily answered. If a case of this kind is seen early and watched from time to time as the disease progresses one cannot help but note how much more rapidly the portion in the mucous membrane advances, than that confined to the skin alone. The same difference is also seen when the disease is entirely confined to the mucous membrane and compared to the same condition in the skin in any part of the body provided that in neither case irritant remedies are applied.

The chief reason, if not the only reason, that malignant cells grow and reproduce more quickly in the mucous membrane than in the skin is because it is much more richly supplied with blood. Recurrence after enucleation from a mucous surface always appears much earlier than when a similar condition is treated in the same way in the skin for the same reason. An epitheleoma, therefore, that involves both the skin and mucous membrane if radically removed, we naturally look for recurrence first in the mucous membrane adjacent to the wound. Anything less than a most thorough radical operation for the removal of an epitheleoma in or invading the mucous membrane will just as certainly be followed by a recurrence, of a vastly more malignant type than the original tumor, as when a

caustic paste is applied to an epitheleoma of the skin which does not destroy all of the embryonic cells present. In other words the operation itself on a mucous membrane causes as much reaction as the caustic does to one in the skin.

With the above facts in mind it might be well to try and determine why local irritation of any epithelioma, be it chemical, mechanical or surgical, causes such a marked increase in the malignancy of embryonic cells. Irritation of any kind causes increased circulation and increased circulation causes increased function. If this be true, all of the cells left in or about the wound, both normal and pathological, are stimulated by the increased circulation and therefore the malignant cells, which at the time of the operation or irritation, have already won supremacy over the local normal cells, redouble their powers of invasion and thus produce the most malignant form of recurrence.

We have already referred to the operation on a mucous membrane for epitheleoma as causing the same amount of reaction as when a caustic is applied to one in the skin; at the same time assuming in both cases that some of the malignant cells were left behind. Some surgeons may disapprove of such an assertion, but where is the surgeon who has yet devised an apparatus or technique by which he can say positively that he has removed every cell that is malignant in character? No matter how radical the operation may be. On the other hand if this is impossible by what right has any one to sew up a wound from which a malignant growth has been removed and not employ drainage? As well as daily X-Ray exposures to destroy the few embryonic cells remaining which are by this means changed from a deep to a more superficial position and may not be entirely removed by drainage.

The "Open Method Treatment" then of an epitheleoma of the lip which involves both skin and mucous membrane and has not yet invaded the cervical glands would be as follows: The mass is removed by the usual radical procedure, with the exception that no undue pressure is applied to the tumor, in order that none of the cells are expressed from the original mass into the neighboring tissues and glands. This done, an incision, going well down to the basement membrane, beginning at the edge of the lip and continued around the cut surface of the mucous membrane, is made. This incision cuts off the blood supply temporarily from the mucous tissue around the wound and thus prevents the reaction or increased blood supply due to the irritation of the operation. The wound is left open to obtain free drainage, and daily X-Ray exposures are then made until the wound heals by granulation. By this means the malignant cells remaining after the radical operation, which caused the recurrence, are not only starved by cutting off the circulation locally but are also, by leaving the wound open, changed to a more superficial position in order that they may be drained from the wound or destroyed by the Ray.

Malformations of the Mouth and Cleft Palate.*

By M. F. Coomes, A M., M D., LL.D., Louisville, Ky., Professor of Physiology, Ophthalmology, Otology and Laryngology in the Kentucky School of Medicine; a Member of the American Medical Association, the Kentucky State Medical Society, and the Louisville Clinical Society; Ophthalmic Surgeon to the Louisville City Hospital, and the Kentucky School of Medicine Hospital; Consulting Ophthalmic Surgeon to Sts. Mary and Elizabeth Hosyital; Ophthalmic Surgeon to St. Anthony's Hospital, etc., etc.

In presenting this subject to you for consideration I do so for the purpose of making a plea for a more thorough consideration of the surgery of cleft palate. The general surgeon is not overly anxious for such work because of the great amount of time required to do it, and a chance of failure. Again the amount of money to be obtained for the average of these cases is not at all in keeping with the time and skill required to perform the operation. This, coupled with the unsatisfactory result so often obtained, causes many surgeons to let some one else do the work, not caring to have the failure credited to them.

It is rather a strange fact that so little sympathy is manifested for these unfortunates by their fellow man. A child with Strabismus is pitied, and its condition commented upon, and the parents are urged to have the defect corrected—but not so with the little one with the cleft palate, it is left to *whine* and *grunt* and a suggestion of relief is rarely ever made in its behalf.

Not long since I operated upon a grown young man who had Hare Lip. I asked him why he waited so long. His reply was that "no one had ever told him that it could be done until recently."

There has been but little of this kind of clinical work done in the medical colleges, and the teacher of general surgery often does not mention it in his course of lectures —hence the general practitioner of medicine may never have heard a lecture on the subject of cleft palate, nor have seen a case until he chanced to meet with it in practice, and under such circumstances he is not likely to give any positive course to be pur-

*Read before the Jefferson County Medical Society January 13th, 1908, Louisville, Ky.

sued by the parents of the unfortunate sufferer.

The surgeon that does this work must study each case so that he may have in his mind's eye, when he commences the operation, a clear understanding of the tissues with which he is to deal in order that the disposition of each part may be correctly made. An improper cut, or a misunderstanding as to what is to be done with any particular structure, would make it impossible to do the work in a proper manner, and a failure or imperfect result would follow.

The operation for restoring the cleft in the hard palate is the "Pons Assinorum" in surgery; in other words, the "jackass bridge." There may be some general laws laid down for this work, but no hard and fast lines can be followed in doing any one of these operations. Each case is a separate and individual case of itself requiring special study as to the mode of procedure, and especially as to the means of gaining the desired end. This is true because of the multiplicity of complications accompanying these cases—as to the shape of the separate parts—one end may be longer than the other; there may be more tissue on one side than the other; the curvature of the bony margin on one side may be greater than that on the other, and so on I might run through the variety of deformities that are met with. Considering these facts it will be seen that the ingenuity and the surveying powers of the surgeon will be exercised to their limit in order to meet the emergencies.

Malformations of the Mouth.

Under this head are usually classified all of the clefts found in the lips and face as well as those met with in the hard and soft palate. It is fortunate for the surgeon and the patient that these malformations occur most frequently in the lips and soft palate, because they are more easily remedied than those of the hard palate.

In this paper I shall not attempt to discuss the causes of these malformations other than to say that it is the failure on the part of nature to do its work, and possibly heredity. There is a mistaken idea on the part of many physicians and surgeons as to the actual condition in the cleft palate, and especially where the cleft is complete through the hard palate. This mistaken idea consists in the belief that there is a deficiency in the quantity of tissue present.

We are indebted to Dr. Brophy of Chicago, for the most enlightened consideration of this subject. He has shown that in these cases there is rarely a deficiency in the amount of tissues, and the successful manner in which he has devised and carried out his ideas shows beyond all doubt that he is correct as to the conditions existing in cases of cleft in the hard palate, and that his mode of operating is the correct one is proven by the results obtained. It is a displacement of tissues and not an absence of tissues. With these facts before us the question of correcting the defect is the next step.

The time at which the operation should be performed is always a question that depends upon the nature of the defect to be corrected, and the age and general condition of the patient. If it is a new born child with a cleft through the hard palate it should certainly be done before the child is six weeks old, probably the most propitious time is when the child is three weeks old. This operation should be done without any interference with the lips, leaving them and the soft palate for subsequent operations. The lips in from three to four months after the cleft palate, and the soft palate when the child is from fifteen to twenty months old. After children have arrived at the age of six years it would seem that any period is the time to operate, that is, whenever the surgeon and the patient are ready. I believe that children at the age of twelve years or thereabouts could be operated upon more satisfactorily because having arrived at an age where we could have better control, their own intelligence assisting us greatly in caring for the wound after the operation. In adults any time is the time when the patient and the surgeon are ready, save in females who should not be operated upon during the menstrual period or thereabouts. In all children a general anesthetic should be used and the Trendelenberg position maintained. This is apparent to every one, because in that position the blood is kept away from the larynx, and the operation which is bloody and slow can proceed so far as interference with respiration is concerned. It may be well if the operator has the time to give the patient (whether child or adult) enough belladonna to dry up the secretious of the mouth so as to be free from excessive saliva which always accompanies these operations. If the operation to be performed is for cleft in both the hard and soft palate then the surgeon should proceed not according to any strict rule except that of his own, because no hard and fast lines can be marked out for these cases. Usually it is best not to interfere with the edges of the cleft until after the other portion of the operation has been done, namely, that of lifting the soft tissues and periostium and sliding them into position. When this has been done then the edges may be freshened and the suturing can be proceeded with. I have occas-

ionally freshened the margins of the two sides before the sliding operation has been done, but I do not know that there is any special advantoge in this—others have proceeded in the same manner.

The Prognosis.

The prognosis as to results of these operations is difficult to arrive at. As to the closure of the lip it may be safely said that in nearly all cases with the exercise of proper care, and a thorough study of the case before operation, and I mean by that, a thorough study of just what you have to deal with, that is, how much tissue you will have and where you will place it. If this point is thoroughly considered a fairly good result can always be expected as to function and cosmetics.

Prognosis of Operation on Soft Palate.

With our modern advances it is pretty safe to say that we may expect to close up the soft palate in nearly all of these cases, although it will often require repeated efforts to do so, and the greatest care on the part of the nurse and attendants; and especially is this true of children who will put their fingers into their months and tear out stitches and do all sorts and kinds of things.

Prognosis of Operation on Hard Palate.

Where the cleft is not too wide in adults it can be closed, and the same is true of younger persons, but it should always be remembered that voice if it ever becomes normal must be made so by training.

So far as the closure of clefts is concerned in young infants it is safe to say that it may be accomplished by the Brophy method if practiced during the first few weeks of infantile life with the prospects of having a fairly good voice, and with a very small mortality as the result of the operation.

Tension of the Tissues.

There may be a good deal of tension of the tissues where the fissure in the lip is closed. It would be difficult to say just how much tension can be tolerated here, but a good deal. It is better, however, to have practically no tension even here. This may be corrected by relaxation sutures, and collodion and gauze dressing after the lip has been closed with the sutures. Small strips of gauze should be used and the greatest care taken to have it thoroughly dry before the patient is from under the anaesehetic.

As to the tension in the soft palate, and the tissues of the hard palate that have been slid over there should be none, or practically none, for certainly any great amount of tension here will result in the stitches cutting into the tissues. Some of this might be tolerated, but it is not wise to take any risk of this kind. Always be sure that the parts are apposed with the smallest amount of tension—as I said before there should be no tension here.

Suture Material, and Relaxation Stitches.

Under ordinary circumstances silk sutures are preferable in operations about the mouth and palate because they are more pliable and less liable to inconvenience the patient. In placing relaxation stitches it is wise to double shot them, slipping on a shot followed by a second one tightening the last which will of course push the first one down close into the tissues. The advantage of this is if the relaxation stitch should become too loose you can push down the shot next to the tissues and tighten up this relaxation stitch at any time it is desired to do so.

Malformations of the Mouth and Nose.

In attempting to correct these defects it should ever be born in mind that the greatest desideratum is a perfect mouth and nose, and in most cases this can be accomplished. The operator must bear in mind that nature will not help him in correcting any of these deformities. There is no such thing as "out growing" any defects that are not corrected at the time of the operation, and especially is this true of the *lip line*. If there is a "notch" at this point of union of the two sides when the operation is completed it will always remain a notch—it will not fill up. The *lip line* had better curve a little convexly down than concavely upwards. The surgeon should bear in mind that the abundant nerve and blood supply of the parts will always enable him to do almost anything he desires with the lip tissue with the assurance that rapid reparation will follow. In some cases the vertical edges of the cleft are thin for quite a little distance from the margins. If these edges are freshened and united it is almost certain that the thinness of the parts will be so marked as to make the lip unsightly. In such cases the thin edges should be split and the skin surfaces united by one set of sutures and the mucous membrane by another, or if the tissues will admit cut off the thin parts and unite where the tissues are sufficiently thick.

If for any reason in a given case it was thought best to close the lip and leave the cleft in the hard palate until a later period, I would not hesitate to open up the lip in order to secure a better view and better opportunities in closing the cleft and subsequently reclose the lip.

Tubal Pregnancy.

By W. P. Whittington, M. D., Asheville, N. C.

The fertilization and implantation of the ovum in any part of the fallopion tube between the graoffian follicle and the uterine cavity, is what we mean by tubul pregnancy. We believe that all extra-uterine pregnancy wherever found at the time of the operation or autopsy, were originally tubal, and that their abdominal or pelvic position, had been acquired by rupture, or by expulsion through the ostium abdominale, known as tubal abortion. There is little doubt that the ovum may become fertilized in any part of the tube; it should not normally be implanted and developed outside the uterine cavity. Tubal pregnancy is usually classified according to its location in the tube. It is interstital when it occupies that part of the tube which is included in the uterine wall, isthmic occupying that part of the tube between its enterence into the uterine wall, and the ampulla. Ampullary situated in the ampulla. Infundibular occupying the pavillion.

When the ovum is fertilized, implanted and begins its development in any part of the tube; the entire genital tract responds to its influence. The symptoms of normal pregnancy are often found in the vagina, the uterus enlarges, its walls becomes thicker, its vascularity is increased and its cavity is enlarged. This growth usually continues as long as the embryo is alive, but the uterus rarely reaches a depth of more than five inches. A decidua forms in the uterine cavity in all cases of tubal prenancy. This decidna is rapidly discharged on interruption of the pregnancy, and if the pregnancy should continue without interruption until the twelfth week, the decidua is gradually thrown off as a sero-sanguinolent fluid. There may be a complete cast of the uterine cavity thrown off. Sometimes the hemorrhage from the urine cavity is sudden and profuse, and may cease almost as suddenly as it began. The oavary on the side of the impregnated tube becomes enlarged and shows a corpus luteum. As soon as the ovum is implanted in any part of the tube there is developed the membranes usual in normal pregnancy. The first effect of this implantation of a fertilized ovum in the tube is to cause an increased vascularity. The muscular fibers are at first hypertrophied and the connective tissue cells are converted into decidual cells.

As the development proceeds the tube is dilated to such an extent that it loses its muscular character, and the gestation sac is converted largely into connective tissue. Unless the tube ruptures the gestation sac is enlarged by inflammation and stretching of the peritonaeum in such a way as to accommadate the developing embryo and its membranes. If the pregnancy is not arrested by the eighth week the fimbria becomes contracted and inflamed so as to close the ostium abdominale. If the pregnancy is terminated before the eighth week, it is usually by abortion through the ostium abdominale into the abdominal cavity.

After the eighth week the termination or arrest of development is caused by the entire rupture of the tube and expulsion of the embryo into the abdominale cavity or pelvis, or by rupture of a vessel on the inside of the tube and hemorrhage into the gestation sac in such quantity as to cause death of the embryo. In this case if the pregnancy is isthmic it is converted into a tubal mole. In interstitial pregnancy if hemorrhage takes place into the gestation sac and the point of least resistence is near the uterine end of the tube, and this hemorrhage into the sac occurs early, the contents of the sac may be expelled into the uterus and the pregnancy thus favorably terminated.

On the other hand if the pregnancy is ampullar or infundibular and the hemorrhage into the sac occurs before the eighth week, the point of greatest resistance being the ostium abdominale, the probability is that tubal abortion will take place. After abortion or rupture of the tube into the peritonaeum or broad ligament the embryo may be reimplanted in its new location and continue to develop even to maturity. The symptomatology of tubal or extra-uterine prenancy varies according to the stage of its development. The early symptoms most commonly resemble those of normal pregnancy. There is usually amenorrhea of one to three months. It is, however, interferred with by the expulsion of the uterine decidua, caused either by rupture of the tube or by the natural efforts of the uterus to get rid of a foreign or unnecessary growth. After the decidua is thrown off, if the tube has ruptured and the embryo perished, the uterine hemorrhage may continue at intervals indefinitely; especially if the gestattonsac is near the uterine end of the tube and the tube has not completely emptied itself. If the tube has completely emptied itsell and the embryo conrinues to grow in its new location, is established and continues indefinitely. Pain is a common symptom of tubal pregnancy, and is due the injuries resulting to it and the surrounding tissues. The pains are usually intermittent, owing to the temporary relaxtion or giving away of resistance of the tube. As

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the embryo develops, the pressure becomes greater and the pains again occur. If the tube is lacerated by this distention to such an extent as to allow hemorrhage into the peritoneal cavity or between the layers of the broad ligament, the pain will be accompanied by more or less shock, and evidence of hemorrhage. The patient may recover from this to again suffer the same or worse condition at longer or shorter intervals, for days and even weeks, if not relieved by appropriate treatment. As stated in another part of this paper, the uterus is somewhat enlarged and if the tube has not ruptured, the uterus is movable and occupies a normal position. The changes in the color of the vagina and cervix are not reliable, but after the second month, may be marked. If hemorrhage has taken place into the abdominal cavity or broad ligament, we will have a tumor varying in size according to the amount and location of the hemorrhage. If the rupture is into the broad ligament, the uterus is pushed to the opposite side, and is sometimes lifted out of the pelvis. If the hemorrhage is into the abdominal cavity the poster or cul-de-sac will be full of clot, pushing the uterus forward and lifting it above the pubis. If we are fortunate enough to make an early diagnosis, before rupture has occured, we will find a tumor of oval shape, varying from the size of a pigeon's egg up, according to the duration of pregnancy. This tumor will appear Pedunculated or in close apposition to the uterus according to its location in the tube. It is usually tender on pressure, slightly elastic and more or less movable. We may be able to palpate the ovary as a separate tumor on, or close by the tube.

On the occurance of hemorrhage into or around the sac on the inside of the tube, the tumor rapidly enlarges, and often assumes an elongated shape. It looses its mobility on account of inflammatory adhesions and becomes very tender to pressure.

After rupture into the abdominal cavity inflammatory adhesions occur and the abdomen becomes hypersensitive. The tumor formed by the coagula is very sensitive to digital examination per vagina. Should infection occur, we have an extensive septic peritonitis with all its distressing symptoms and results.

After rupture, should the embryo be reimplanted and continue its growth in the broad ligament or pertineal cavity, the tumor will gradually increase in size and more or less pain of an intermittent nature continues. The abdomen usually becomes symmetrically enlarged, but often the enlargement is greater on one side.

After the fourth month, when evidence of fetal life begin, the movements are painful and there may be many symptoms of spurious labor, of a very annoying character.

The two most important things in the consideration of tubal pregnancy are diagnosis and treatment. The only way to make a diagnosis is to thoroughly examine and study every case of pelvic disease that presents itself, and when the diagnosis is not clearly made by a proper use of all other methods at hand, we should not hesitate to make an exploratory incision. I operated on a lady sometime ago who had been an invalid for twelve months, and who had been treated with bromides, tampons and pesseries, without benefit. I knew there was a retroversion and that there was something wrong with the left tube but I did not know what. I opened the abdomen and found the fimbria firmlo adherent over the end of the tube and the ostium abdominale closed. There was a small oval tumor, the size of pigeon's egg, about the middle of the tube, which represented a tubal mole, the remains of a blighted tubal pregnancy. The tube was removed, the uterus suspended, and the woman cured.

The diaognosis being made there is, in my opinion, only one course to pursue; and that is to operate. In the earlter months, before the viable period of the child, I think, there is no dispute as to this plan. If the diagnosis is made before the rupture, the tube and the gestation-sac should be removed by the abdominal route, or if not removed entirely the sac may be opened and cleared of contents and closed. If the tube has ruptured or aborted, the operation is imperative and the abdominal route is to be preferred.

Now again referring to the period after the fourth month I do not think we should delay operation. In doing so we may subject oue patient to sudden rupture of the sac and death by hemorrhage and that too with but little to gain. Statistics show that very few of the yery fiew, children who are delivered alive ever survive the second year, and that a very far less number arrive at adult life. There is only one condition in which I would advise delay and that is where we do not make a diagnosis until very near the viable period of the fetus. The question of supreme importance in operation in advanced extra-uterine pregnancy is the disposition of the sac and placenta. When it can be pedunculated and ligated en-mass, this is the proper thing. When it cannot be so ligated, it is probably best to leave the placenta in tact and pack with gauze and partly clase the wound until the placenta is separated and the sac closes by contraction and granulation.

The operator will have to use a great

deal of judgment and anitomical wisdom in the method pursued. Sometimes by ligating the pelvic and uterine artenial connections the uirculation may be so completely cut off that the placenta can be easily removed. If the fetus is already dead and degeneration begun it should be as thoroughly removed as possible and drainage through the vagina established. In cases where the fetus has been dead for a long time and occupies the pelvis, an opening through the vagina will be most advantagious and the debris may be removed or allowed to drain away through the vagina without danger of infecting the peritoneal cavity.

The Position of the X-Ray Specialist in the Field of Medicine and Surgery.‡

By Dr. A. L. Gray, Richmond, Va.

The wonderful things promised to the world, from the very announcement of Roentgen's discovery, by those who first experimented with the X-Ray and the many erroneous statements of its possibilities, especially along the lines of treatment, caused in a few years a very decided skepticism among the profession as to its real worth. This was not at all unnatural and was the necessary sequel to the unscientific reports of cases by men desiring notoriety at the expense of establishing truths good for all times.

There are still two distinct classes existing in the X-Ray world; the one procures an outfit for the impression he may make on the minds of patients or prospectives, and uses it merely for advertising, as an interesting toy, or simply because a competitor has one and he cannot afford not to have one also; the other class consists of those who, by careful observation, intelligent and painstaking investigation, arrive at conclusions only after summing up facts. Only such men as these can become specialists in anything.

The question may be asked why should X-Ray work be a specialty? Should it not be a part and parcel of the equipment of every physician or surgeon? My answer would be that it is a study of itself, sufficient to occupy more than the entire time of any man.

The ideal X-Ray man should be a physicist, an electrician, a photographer, an expert anatomist, a pathologist, therapeutist, physician and surgeon, and withal, competent in the field of forensic medicine.

The radiologist is often told by his patients that they were sent "to have an X-Ray picture made to find out just what the trouble is." This expression is about on a par with the sending of a tubercular suspect to have his chest percussed in order to find out whether he has tuberculosis. X-Ray diagnosis requires an *examination* just as truly as does the microscopist *examine* specimens referred to him. Making the picture is the easiest part of the work.

It is essential that the most accurate knowledge possible be obtained of the nature and capacity of the apparatus used, as well as the relative positions of tube, parts examined and plates.

It is sometimes said that the "X-Ray picture lied" about a condition. This is never true; the belief arises from lack of familiarity sufficient to enable a proper reading of the negative. Take a case of simple transverse fracture of a long bone, and it is entirely possible to make a negative that will not show a fracture at all or one that shows wide separation, though the ends may be in almost perfect apposition. The negative is a true picture of the existing conditions. There is nothing simpler than making a radiograph; the interpretation of it requires skill.

There are many cases that show apparent injury on the plate when no real injury exists. Especially is this true at the epiphyseal ends of the long bones of the young.

Even more skill and special knowledge are required in the application of the Roentgen rays for therapeutic purposes. Take for example the two skin diseases, lupus and chronic eczema: in the former the best results are obtained by treating with long close exposures carried almost to the point of producing a burn of the second degree, while the latter requires the mildest stimulating applications.

Much and irreparable damage may be done by the unskilled use of this powerful agent. Different pathological conditions require very different modes of treatment. That which may be beneficial to one condition may be very injurious to another. Many more reasons may be advanced to show the necessity for a most thorough knowledge of the equipment, dosage, the pathology of the case and rationale of the treatment.

It seems therefore evident that, in order to employ intelligently the X-Rays either for purposes of diagnosis or treatment, the most complete application of one's time and talents to this subject is essential. It is a study about which every case gives new information, and in order to become the expert that modern times require, he should devote practically his entire time to the acquirement of the special skill necessary for success.

There is perhaps nó field in which the

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medical man may labor that more certainly requires that he be possessed of tact and that he demean himself ethically toward his fellows, than that of X-Ray work. Bad surgery is constantly being exposed, and unless the greatest care is employed, dire results may follow. Often indiscreet comments may result in damage or malpractice suits. Equally true is the reverse with the guarded and ethical Roentgenologist. He not only can be of value in ascertaining the true condition for treatment purposes but can furnish the most efficient means of satisfying the patient with the results, by an ocular demonstration such as is given in a good radiograph. It has been my good fortune to avert damage suits on numerous occasions by a careful X-Ray examination.

There is perhaps no department of the healing art in which the X-Ray man may not be found useful. The genito-urinary surgeon employs the Roentgenologist to locate calculi; the eye, ear, nose, and throat men find him useful in locating foreign bodies in these organs and in sinus, antral, and mastoid diseases, in locating hard tissue tumors in these and accessory regions as well as the treatment of such conditions as fall within the scope of X-Ray therapy. The obstetrician employs him to determine foetal position, presentation, multiple conceptions and the shape and formation of the pelvis of the mother; the gynecologist may have him differentiate the denser tumors and treat inoperable malignant diseases; the stomach specialist may learn from him the size and position of the stomach, its motor power and also these facts concerning the intestines; the chest expert finds him useful for determining the size, shape, and position of the heart, the presence of air or fluid in the pleural cavities, thickened pleura, consolidation and various evidences of incipient tuberculosis, cavities in the lungs, aneurisms, enlarged glands and malignant tumors in the chest; the brain surgeon has him locate dense growths, abscesses, or fractures; the internist finds him useful in the treatment of diseases of the blood forming organs such as leukemia, pseudo-leukemia, and many of the foregoing diseases mentioned under the other sdecialties. In perhaps no other field is X-Ray treatment more useful than as an adjunct to the skin specialist. There is scarcely a single intractable chronic skin affection or parasitic skin disease that may not be benefited or cured by the proper administration of this agent. The uses in general surgery are too well known and too numerous to admit of discussion. I desire, however, to lay special stress on the value of X-Ray examinations in bone diseases and in joint injuries or affections. It should be the rule to have an X-Ray examination made for any joint trouble that is the least obscure. Perhaps there is no joint condition of which there is greater liability to error in diagnosis than that of the hip. Often does the radiograph reveal disease where fracture is suspected, and especially is the reverse true. Obscure causes for prolonged disability are often made clear and imaginary or simulated injuries for purposes of financial gain are also often dispelled.

There should be in every city at least one physician who makes this work his specialty. He should have the hearty co-operation of the profession about him and should so equip himself that, by reason of his accuracy, ethics, and readiness to spare neither pains nor patience to add to our far-from-complete knowledge of this subject, he may render himself indispensable to the community.

I do not wish to encourage the promiscuous employment of an agent that may be so harmful in so many ways in unskilled hands. Failure to obtain results when they should be expected and especially the procuring of undesirable results will tend to bring into disfavor what should be a most potent factor for good.

Let us work together for the mutual advancement of our different specialties, for the relief of suffering humanity and the world will bless our efforts.

312 E. Franklin St.

Massive Quinine Dosage in the Treatment of Pneumonia. o

By R. L. Payne, Jr., M. D., Norfolk, Va.

In writing upon the subject of Pneumonia I feel that I am approaching a subject which is near and dear to us all, and one which, in spite of its familiarty, presents in itself a query that has puzzled our fathers of medicine for hundreds of years, and is destined to prove a mystery perhaps forever.

The pathology of Pneumonia in its three stages, together with the popular methods of treatment are familiar to you all and so I shall endeavor to discuss with you some new thoughts, new hypotheses and new treatment of this dreaded disease, hoping that some of you may become interested and in your practice give Quinine Sulphate a trial in the treatment of Pneumonia. I say a trial, for I feel that in spite of my own conviction, born of a limited experience, the Quinine treatment of Pneumonia is still a proposition of doubtful utility and warranted only by results obtained in the expe-

oRead before the Seaboard Medical Association, Dec. 16th, 1907.

rience of a few men. So far it has been simply a matter of accepting the radical statements of those using this treatment without any research work on the subject, practically without theories and with nothing to justify our giving it a trial, except results obtained. Still we might stop right here and agre that to relieve and curse our patient in the quickest possible way is our chief intent and purpose, no matter how accomplished, but I feel that this is an age when we should not accept every theory advanced, and so I hope that some of you wili go further than to merely give this treatment a trial and endeavor by your best efforts to work out and explain the why and wherefores, for in so doing only will the chief merits and intelligent use of Quinine in Pneumonia be brought to light.

In reviewing the literature I find Juergensen first recommending Quinine in five and ten grain doses in Pneumonia in 1879, and as far back as 1875, A. L. Loomis advocated the use of Qunine, giving 25 grains at one dose and 15 later, or, as he says, the total 40 grains can be given at a single dose. Nothing, however, of much note appeared concerning Quinine in Pneumonia until January, 1905, when Galbraith, in the Journal of the American Medical Association, brought to our notice the value of large and repeateddoses of Quinine in the treatment of Pneumonia, and in this paper he reported 50 cases successfully treated and discussed his original methods of dosage. This was a paper of great worth on account of its originality, and if Quinine proves to be as useful in Pneumonia as our limited experience has shown, the profession owes a big debt to Galbraith, the pioneer in this work.

In brief the treatment consists of the administration of 40 to 80 grains of Quinine Sulphate at one dose, followed in three hours by 30 or more, and then starting with Tincture Ferric Chloride minus 15 to 20 every three or four hours. The second day, and even the third, these doses are repeated, and if at that time the patient is not considerably better or the crisis has not taken place, then ten grains of Quinine are given every three or four hours. Of course, these are adult doses and the doses for children should be proportionate, but you would be surprised to know what large doses of Quinine a child suffering from Pneumonia can take without showing any signs of cinchonism of depression.

During the winter and spring of 1906 I saw and treated twenty-two cases of Pneumonia by this method without a single death. Of this number sixteen were cases of typical lobal Pneumonia; four alcoholic, with accompanying delirium in all, and involvement of both lungs in two, and two cases were post-operative, or ether Pneumonia. Last winter I treated seven cases successfully, two of which were post-operative and one lobular in type. This fall I have had one case treated with massive doses of Quinine, whtch had a pseudo-crisis on the morning of the third day and a real crisis on the fourth. Thus I have to report to you 30 cases treated by this method, without a single death, but right here I might say that I think my first few cases did equally as well as my last ones, even though my experience was nil.

Still with each case I feel that I have learned something more of this treatment, and I wish to report to you briefly four cases representing different types of the disease and discuss some of my observations.

Case 1. Alcoholic Pneumonia, J. C.,—male 26—wife says he drinks constantly and for the past two weeks has been drunk most of the time—one week ago was taken sick and on admission to hospital, April 1st, 1906, was very delirious and seemed to be suffering from a pronounced toxaemia—temperature 105, 1-5—pulse 126—resp. 60—exceedingly restless, with wild staring eyes, short, restrained cough at frequent intervals. and tremors so exaggerated that wrist and ankle cuffs had to be used.

Physical examination revealed signs of complete consolidation of entire left lung, with harsh breathing over base of right lung. He was given at once calomel, grains ¼ every one-half hour up to three grains, and at nine p. m., two hours after admission, 50 grains of Quinine Sulphate in solution with muriatic acid. At twelve m. 30 grains more of quinine were given and minums 20 Tincture Ferric Chloride, every three hours. ordered.

April 2d, 1906,—Delirium very much exaggerated having passed a sleepless night—coughing with great deal of pain—temperature 102 4-5—pulse 110—resp. 50. At ten a. m., gr. 40 of Quinine Sul. were given and at 3 p. m., 30 more grains were administered. At six p. m. the temperature was 102—pulse 100—resp, 52, and delirium and toxaemia seemed to have lessened. Physical signs remained about the same as one admission.

April 3rd, 1906. Delirium absent—patient entirely rational—coughing with difficulty and raising bloodly sputum—temp. 102½—pulse 96—resp. 20. Quinine Sul. gr. ten were ordered every three hours. Patient said he was not deaf at all and that his ears were not ringing, but complained of a bitter taste and that water and coffee tasted bitter. This ten grains every three hours was kept up until the morning of the

5th, when his temperature fell to normal and never rose again. On this day of crisis he coughed freely for the first time and expectorated rusty sputum to the amount of a small teacupfull. The next day the sputum hardly measured 3 tablespoonfuls, and the day following was nearly nil. This scarcity of sputum in the stage of resolution I especially call to your attention, and will speak of it more at length later on. Counting one dose on the morning of the 5th this patient was given 320 grains of Quinine in a period of four days.

Case No. 2. J. Mc. male child, age 3 years—mother said child had been sick three days with cough and high fever. On admission, April 6th, 1906, chlld's temp. was 104—pulse 150—resp. 48. An examination revealed flatness and bronchial breathing over entire upper lobe of right lung. Two grains of calomel and soda were given at a single dose, and at three p. m., two hours after admission, 15 grains of Quinine Sul. At six p. m., ten grains more of quinine were given and ninums 8 Tincture Ferric Chloride every 4 hours order ed. I saw the child repeatedly up to midnight of this date, and at no time did he show signs of excessive nervousness, restlessness or rash, such as we frequently see in children from too much quinine. At this time temp. 103, pulse 140, resp. 46.

April 7th, 1906, temperature, pulse and respiration about the same, child perfectly quiet and slept most of the night. I could not determine whether his ears were ringing. At nine a. m. he was given 15 grains of quinine and three hours later ten grains more. At this time, noon, his was temperature was 103, pulse had dropped to 106 and resp. 46. He showed no symptom of too much quinine but seemed somewhat deaf when spoken to in a subdued voice. At six p. m., he did not seem at all deaf, noticed every time he was addressed and coughing without much effort.

April 5th, 1906, condition about same except temperature was 102, pulse 105, resp. 47. He was not given quinine on this day, hoping the crisis would occur.

April 9th, 1906, temperature 102, pulse, 106, resp. 48. Child was breathing with difficulty but coughing freely. At 12 noon, 15 grains of quinine were given, and at three p. m., ten grains more were ordered. At five p. m., two hours later, crisis had occurred; temperature normal, pulse 96, resp. 38, child was resting quietly, did not seem deaf the least bit and his recovery in one week was uneventful. No sputum was ever noticed in this case, and if present was swallowed as fast as coughed up.

Case No. 3. Post-operative or either pneumonia—Mrs. N., female age 29. Admitted to hospital May 2d, 1907, suffering with bilateral pustubes. I operated on her for this trouble, removing too large pus sacs from the pelvis, the operation lasting about one hour. She did very well until the evening of the second day following operation when she was seized with a severe chill, paln in her right side and her temperature rapidly rose to 103, pulse to 120, and resp. to 46. I examined her lungs six hours later and found tubular breathing over the middle and lower lobes of the right lung. At this time she seemed to be very much in distress and her lips and finger tips were very much cyanosed. A diagnosis of ether pneumonia was made and fifty grains quinine sulphate immediately administered in capsules. These capsules were vomitted in ten minutes, and thirty minutes later I gave her 50 grains in solution with muriatic acid, which was retained. Three hours later, at 12, midnight, 40 grains more of quinine were given and tincture Ferric chloride minums 20 every three hours ordered.

At nine a. m. the next morning May 5th, her temperature had fallen to 100, pulse 92' resp. 38. She was resting quietly and said she felt so much better than the night before. Said her ears were ringing slightly last night but not at all now. At this time the physical signs were fully developed and she was coughing frequently but raising no sputum. She was given 40 grains of quinine and in three hours 30 grains more. Six hours later she complained of no tinnitus and her pleuritic pain had entirely disappeared under the use of two ice caps.

May 6th, 9. m. Temperature normal, pulse 82, resp. 28. Examination revealed solidification of midnle and lower lobes of right lung with a fair number of moist rales. The patient expectorated a small amount of rusty sputum the next three days but her temperature never rose above normal and her recovery was uneventful.

My first experience with this treatment of pneumonia was had in conjunction with Dr. T. E. Mendenhal, at that time my colleague in hospital service, and I feel that our success from the first was largely due to his preciston and keen ability of observation in those first dozen cases. On beginning this paper I wrote to him asking for his later experience with quinine in pneumonia and in reply he said he had treated nine cases with one death. At the same time he cited a case I wish to include in this paper. Dr. Mendenhal, who does a large practice in the mining section of Beaverdale, Penna. writes as follows:

"I now have a patient which well illustrates my line of cases. The men here work in the mines with litttle clothing, get

warm and come out and walk a half mile in the cold. The man in question walked home in a snow storm and at one o'clock p. m. had a severe chill followed by a temperature of 104. I saw him at 2 a. m. and found the whole of the right lower lobe congested with all the physical signs of the first stage. He had a high tension pulse and very much accentuated second heart sound. In order to be sure of beginning pneumonia I simply gave a cathartic and aconite until morning, and at 8 a. m. all the physical signs were present. I then gave 80 grains of quinine sulphate and three hours later 40 grains more and started Tincture Ferric Chloride minums, 15 every three hours. His pulse dropped from 108 to 82 and temperature from 103 2-5 to 100 by 4 p. m. He remained about in this condition for forty-eight hours when his pulse rose to 100 and temperature 102. I gave him 40 grains of quinine and in three hours 30 more with results of first dose. He then developed a very productive cough which lasted three days and on the 8th day he was sitting up. To-day is his 12th day, and when I went to see him he was at the dinner table with the rest of the miners."

To me this case is a plain and forcible example of what quinine will do in pneumonia and I feel sure that this attack was practically aborted by the early and massive doses of quinine. In my limited experience I have found this treatment of infinite more value in Frank Cobar pneumonia than in the broncho or lobular type where the good effects are not nearly so marked or the duration of the disease so much shortened. But I think it is the rule in most cases of broncho-pneumonia that there is usually present a mixed infection and this thought brings us to the vital question of how quinine acts in pneumonia.

Whether it has a specific action in pneu-mococccic infection and not so in infection from other organisms? Whether it helps to neutralize the pneumo-toxin chemically by the so-called complemental or amboceptal action, or does it stimulate an active immunity by its action on the tissue cells or bacteria? If on the latter, is its action of an agglutinating or bacteriolytic nature? Most particularly am I interested in the action of quinine on the blood cells and blood plasma and here I believe research will do most to elucidate our questions. Pysiological research has long since told us that quinine checks the formation of leucocytes and inhibts their ameboid movements and from this view we might well argue that quinine, havin g this action, would tend to materrially limit exudation and thus yield a favorable result. This may be more or less true but in nearly all of my cases careful counts were made of the white cells with the result .hat from one to six hours after the exhibition of large doses of quinine the leucocytes invariably increased from one to three thousand. Though this is a small increase still with other facts to consider it may be of the greatest importance. I am fully assured that there is some direct chemical action on toxin and cocci from the fact that we don't get any cinchonism and the reaction of the patient for the better is so pronounced shortly after administering the quinine. Quinine undoubtedly stimulates the heart, giving a slower, softer pulse, and at the same time materially increasing the peripheral circulation, for the drop in temperature and pulse accompanied by a freer action of the skin and increased comfort of the patient all tend to justify this conclusion. It is the rarest thing to get chinchonism even after such massive doses of quinine in pneumonia, and I recall a patient who was given 100 grains by mistake for an order of 50, but who complained wery slightly of tinnitus and showed absolutely no bad symptoms. Whenever deafness and tinnitus does occur it invariablo disappears in six or eight hours and in my recent cases I don't notice it much but rely more on a rise in pulse as a guide to giving more quinine. The question of cinchonism depends largey on the degree of the disease, that is the degree of intoxication, and I recall several cases where the patient was seen a short time after the initial chill and quinine given with a resulting deafness; whereas a day or so following when the toxenia had increased even larger doses of quinine were ingested without the least signs of cinchonism. This seems beyond a doubt to indicate some neutralizing action of the specific toxin on quinine or vice versa, for before bacteriolysis has liberated the intracellular toxic substances into the tissues of the body we get the signs indicative of so much quinine in the circulation, causing certain symptoms. As the toxins increase there is supplied the so-called chemical complement and cinchonism is found wanting.

Right along with these thoughts the method of administering quinine is a question of some interest for most probably its absorption into the tissues is depent largely on its solubility. Quinine being insoluble except in an acid medium it has occurred to me that, when given in capsules, perhaps only enough acid is present at one time in the stomach to dissolve a portion, say half, of these massive doses and as a result we don't get an excessive physiological action of the drug. With this in view I decided to exhibit my quinine in aqueous

solution with hydrochloric acid and in one or two cases I thought the action of the drug was more decided but the results were hardly sufficient to warrant my especially advocating this measure. In the cases reported you will recall the fact that I remarked on the small amount of sputum present and this phenomena I have watched with most careful scrutiny in all my cases. I find that the rusty sputum is invariably late in appearing, always scanty and disappears in from one to three days. The profuse muco-purulent sputum, so commom in the stage of resolution, is also either very scarce, or, as I have observed, in several cases, practically wanting. I have watched this sign even from my first cases and I didn't know any one had ever made this observation save myself, but I find on reviewing Galbraith's original article that he writes as follows: "In quite a number of recent cases I have noticed that the rusty sputum has been delayed until the third or fourth day of the disease and continues only one or two days, probably due to a mixed infection or the treatment."

Now to me the explanation of this phenomena offers more chances towards the solution of how quinine acts in pneumonia than any other channels of research. Unquestionably the leucocytes play the most prominent hand and I believe here quinine exercises its most important action. Many theories have been advanced to explain the various types of immunity to the invasion of pathogenic bacteria but all was chaos until Metchnekoff demonstrated to us the resistant and destructive energies present in the leucocytes to bacteria. The fact that quinine does inhibit the ameboid movements of the white cells may contribute largely towards the deceased exudation and consequent lack of sputum, but I feel sure that phagocytosis plays a more powerful hand in bringing about these results and that quinine not only stimulates phagocytosis but has some action direct or indirect on the pneumococci. In order to produce bacteriolysis of the ingested organisms and rob them of their toxic products, enzymes are formed in the protoplasm of the the leucocytes and probably qutnine in some way stimulate this formation. In most of my cases I have made an especial study of the white cells with results that may cast some light on the subject. Smears were made both before and after giving quinine, these preparations stained similarly and comparative study made of the white cells. Six or 7 hours after giving quinine the leucocytes appeared somewhat swollen and the protoplasm contained granules, fragments of bacteria and debris much in excess of the stained preparations before giving the quinine. This was demonstrated by repeated preparations. I regret that no definite count of the contained bacteria was made or possible index estimated, for this would add materially to the last observation. Now we might argue that anything that tends to increase leucocysis would increase this phagocytic action, but since quinine increases the leucocytes very slightly, if any, and probably not all, we must turn our attention towards the bacteria. Believing that phagocytosis is increased after giving quinine in large doses it seems perfectly tenable that this increased phagocytosis is dependent on quinine circulating in the blood and tissue juices. In other words, we have present a chemical substance which acts directly or indirectly on the bacteria, sensitizing them and rendering them more digestible. Thus I find myself face to face with the opsonic theory and it seems reasonable to believe that quinine increases the opsonic power of the blood, providing we accept the theory that an opsonin is nothing more than a chemical substance circulating in the blood and tissues and combing with bacteria to render them more easily digested and destroyed by the leucocytes.

I have failed to mention the fact that, whenever possible I always use ice caps over the inflamed lung and I don't believe anything will relieve the pain of an accompanying pleurisy so quickly or efficiently as this agent. The death ratio of pneumonia is recorded by most authorities as ranging from 20 to 40 percent., but men using this quinine treatment place the mortality at about two percent. So far in 30 cases I have not had a single death. In closing let me urge you not to approach this treatment timidly and with small doses of quinine. Don't wait until bcteriolysis has distributed a lethal dose but give your quinine in large doses from the outset of the the disease and I believe your results will be in accordance with those already reported.

Sarcoma of Colon.†

By Dr. C. M. Strong, Charlotte, N. C.

Sarcoma of the intestines is rare, especially of the colon. I have been able to collect only sixty cases. Twenty-four of these were in colon, and eight were in children, and only four of these in the large intestines. These statistics were mostly compiled by Krundat, of the Vienna General Hospital, up to 1904. Since then only a few cases have been collected, and most of these are from foreign authors. Being a rare disease, a history of it might be of interest.

1st. Etiology, like that of cancer in gen-

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eral, is merely speculative, but many cases have had trauma, which may be the exciting cause. This is also true of sarcoma in other localities.

2nd. Pathology: Sarcoma, being of the connective tissue group, originates in the submucus layer of the intestines, extending next to the muscularis, and last to the mucus, and rarely involves the serosa, which is the opposite way in which carinoma spreads. The most common seat of sarcoma is jejunum and ileum, while that of carcinoma is the duodenum near stomach and large intestines.

Metastasis, general and local, is less frequent in intestinal cancer than in any other organs. In intestinal sarcoma, general metastasis is more frequent than carcinoma, and the most frequent sites are the lungs, liver, and spleen. Local involvement is mostly confined to the intestine and mesentery, and as the serosa is rarely involved, we don't have the tying together of viscera we have in carcinoma. Sarcoma is propagated through the blood channels, while carcinoma is through the lymphatics, hence sarcoma is a more general infection. Sarcoma is probably a more compact segregation of cells, with less infiltration of surrounding tissues than carcinoma, hence recurrence in loco after excision is less likely. This theory is borne out by statistics. These facts explain the differences in the early symptoms, as will be noted later. Sarcoma occurs in two forms, the round cell and the adeno sarcoma. The spindle cells variety has been only found a few times in the intestines.

The lumen of the gut is rarely narrowed in the first stages, while this occurs early in carcinoma. They grow very rapidly, but rarely involve the peritoneum, except as an irritant, which causes the early ascites. Vomiting is not common as in carcinoma, because there is no early obstruction.

Spreading through the medium of the blood channels, we find early blood dyscrasia, emaciation, and metastasis. Symptoms are obscure. The general symptoms manifest themselves early in emaciation and so-called cachexia, while there are very few local ones. In carcinoma we have the local symptoms first and general later. The most pathognomonic symptoms of cancer of the intestines of all kinds is the presence of a mass and ascites.

Pain in sarcoma is not prominent until obstruction takes place, the serosa not being involved. Blood in feces is not common, the mucosa not being involved. Both these symptoms are common in carcinoma. Obstructive symptoms come on late, and in some cases not at all, the cases dying from general infection, with very little local manifestations. Very little disturbance of digestion is noted as in carcinoma. Most of cases occur under 30, while most cases of carcinoma occur after 30, though exceptions are found in both cases.

The most pronounced symptoms are rapid emaciation, with a movable mass in abdomen, with ascites. Most cases show temperature rise, while in carcinoma it is usually sub-normal. This is due to the general infection of sarcoma.

Diagnosis has rarely been made before section or autopsy. Rapid emaciation and cachexia without appreciable cause in a patient under 30, and the presence of mass with ascites should warrant us in making probable diagnosis of sarcoma of intestines.

Prognosis without operation is death within ten months. With operation, 57 per cent. of cures have been reported, making the prognosis better than that of carcinoma. Of course, the amount of gut involvement and general infection affect the prognosis. Treatment is removal by resection.

Report of Case—Mary R., aet. 5, was brought to the Good Samaritan Hospital eighteen months ago, with this history: Family history good, and own history six months prior was good. At that time she began to lose flesh, and became yellow without any cause. Two months after a mass was noted in the right hypo-gastrium, with ascites. There was no pain or digestive disturbances, appetite fairly good, bowels regular. The swelling and mass increased paripassu with the emaciation and weakness, until she became a skeleton, with a large abdomen, but no untoward symptoms occurred until three weeks prior to admission, when obstructive symptoms appeared until seven days before admission, when the bowels refused to move after large doses of purgatives and enemas were used. Stercoracious vomiting and fearful pains occurred, with enormous distention of abdomen. Two days before admission the pains suddenly ceased, also vomiting, but pulse and temperature went up, and on admission the pulse could not be counted, temperature 102, and abdomen distended, and dull, and general appearance of extreme gravity. The diagnosis was made of a ruptured appendix with general peritonitis, and an operation, more as a dernier resort without any hope at all, was advised, and done. Very little ether was used, as she was almost insensible of pain. On opening abdomen, fluid gushed out, composed of liquid pus and feces, a tumor presented size of double fist attached to the bowel all around, involving only the mesenteric attachment. At the proximal side, a rent in the colon was found large enough to admit the thumb, which was caused by the purgatives, I

believe, and occurred two days prior, which accounted for the alleviation of vomiting and pain. The tumor, with about four and a half inches of the colon, was resected and end to end anastomosis (Mayo method) with a Roosevelt clamp was done, cavity washed out with hot saline, two large tubes (on account of infection) introduced in each angle of wound, with two through and through silk worm sutures between, intravenous infusion used. She was put to bed practically dead. However, she reacted, and bowels moved on the fifth day from oil per orum and rectum, the tubes withdrawn. Left hospital on fourteenth day. No gauze was used. And is now, eighteen months after, seemingly well and growing. The microscopic findings by competent pathologist showed the growth to be a round cell sarcoma, involving the lumen of colon, and its attached mesentery.

This case emphasizes the importance of early operations in obscure abdominal disease, as the percentages of permanent cures are greater in intestinal cancers than elsewhere, and of course the earlier the better.

1st. The avoidance of strong purgatives in obstruction of bowels.

2nd. The value of operation even in an apparently moribund patient.

3rd. The wonderful recuperative powers or the child.

4th. The efficiency of end to end anastomosis.

5th. The value of complete drainage without gauze in general infection.

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Ectopic Gestation.†

By John W. Dillard, M.D., Surgeon Hygeia Hospital, Lynchburg, Va.

Ectopic gestation consists in the development of the ovum external to the uterine mucus membrane, and the variety that I desire to report is that commonly known as secondary abdominal pregnancy, primarily tubal.

History:—On October 29th, 1907, Mrs. Try, of Ohio, married, aged thirty-six, was admitted to the Hygeia Hospital in a much distressed condition. While traveling she was taken suddenly ill with an intense pain in the lower abdomen, most marked on the right side. Shock was severe and she became faint, being unable to travel. Her journey had to be discontinued, as this condition lasted several days. She had missed her period three months, or thereabouts, and regarded herself pregnant. After slowly recovering from the shock and pain there was no special trouble for several months, when she noticed an enlargement in the right lower abdomen and consulted a physician, who treated her for some time for an abdominal tumor.

Examination:—Temperature one hundred and two degrees, respiration hurried, pulse quick and feeble. Her face was flushed and she had an anxious expression. The abdomen was large, non-symmetrical and sensitive, particularly over the right lower portion. She often vomited after taking food.

Pelvic Examination:—This examination revealed a large and hard globular mass very low in the right iliac fossa, uterus was high in the pelvis, slightly enlarged, soft to the feel and dilated so that the index finger could be easily carried to the internal os.

Sexual History:—She menstruated early, and was normal in this respect during her single life. She married about eighteen years of age, and had four children at term, no miscarriages, and her labors were normal. She never had any specific disease.

Treatment:—Operation was performed two days after she was admitted, and upon opening the abdomen in the middle line between the umbilicus and the pubis, it was found that the peritoneum was strongly adherent to what proved to be the placenta, which, though gently handled, gave way, and was instantly followed by the most profuse out-pouring of blood that I have ever witnessed from the abdominal cavity. The child, a large monster, in the seven and a half month of life, was as quickly as possible delivered, the cord cut short, and the cavity packed with gauze that had been steeped in hot water. The hemorrhage soon ceased and the incision was dressed as an open wound. The shock, however, was so profound that the mother never reacted, dying about four hours after the operation.

The placenta was strongly adherent to the peritoneum and intestines. During the operation normal salt solution at a temperature of one hundred and ten was kept constantly flowing into her vessels by hypodermoclysis and other cardiac stimulants were used hypodermatically, but to no avail.

Remarks:—My rule has been to operate by the abdominal route whenever this condition is diagnosed, or even strongly suspected, regardless of the placental bruit, or of the period of pregnancy, believing that the dangers dependent on a continuation of an abdominal gestation make it unwise to delay the operation until the fetus dies that

†Read before the Tri-State Medical Association meeting at Charlotte February 18, 1908.

the placental circulation may become obliterated.

Summary.

1. This was the fifth conception.
2. Only two years since patient was delivered of last child.
3. Patient had never had symptoms of infectious or inflammatory disease of any of the pelvic organs.
4. Never had subjective symptoms of pregnancy prior to the fifth month.
5. The menstrual period was delayed as in a normal pregnancy.
6. Bupture occurred into the peritoneal cavity and notwithstanding patient had no treatment at the time mother and child both lived.
7. The appearance of physical signs in this case must have been very late.
8. She had passed the seventh and a half month of her gestation with a large living child in the peritoneal cavity.

Presidential Address.†

By Dr. Stuart McGuire, Richmond, Va

Gentlemen of the Tri-State Medical Association of the Carolinas and Virginia:

The honor of being chosen President of this Association was unexpected and undeserved. I find it difficult to express my gratitude to my friends in words, but I have tried to show my appreciation of their partial kindness in action, by an earnest and continuous effort since the day of my election to make this meeting of the Association one of the most successful in its history. In this work I have had the active assistance of many of its members. but especially must be mentioned the enthusiastic. untiring and efficient co-operation of its secretary, Dr. J. Howell Way, to whose energy and ability must largely be attributed the results which have been achieved.

Our effort has been to accomplish three objects: *first*, to arouse an enthusiasm among existing members which would cause a large attendance at this meeting; *second*, to secure a list of papers which would constitute an attractive program; and, *third*, to present the advantages of the Association in a way which would induce good men to apply for membership. How well we have succeeded cannot be determined until after the adjournment of this meeting. We have every reason, however, to expect an attendance which will break all previous records. There is every promise of the addition of an unusually large number of names to the list of our members; and the preliminary program which has been published and distributed will bear comparison with that of any similar organization in the country, in point of number of papers, variety of subjects, and standing and ability of authors.

During the past year, by correspondence, personal interviews and speeches at county, district and State Societies, the Tri-State Medical Association has been called to the attention of the profession of the two Carolinas and Virginia in a way which will not only result in temporary good, but will continue to bear fruit for years to come. The time I have personally given to this work has been a labor of love, and the only duty imposed upon me by my office which I have undertaken with reluctance is that of preparing and delivering an annual address as required by our Constitution. We live in a prastical age, and the President of such a body as this should be an organizer, not an orator. I fully agree with Dr. Kollock, who said at our third annual meeting, that a presidential address has ceased to be useful or necessary, is a waste of valuable time, and is a custom which should be discontinued. Nevertheless, I set myself to the task and spent considerable time in reading what had been said upon similar occasions by the presiding officers of this and other Associations. I found that there were three lines open to me—historical, philosophical and scientific. I determined to write on a professional subject, and prepared the rough draft of a discussion of the most recent views of the pathology and treatment of surgical shock. At the last moment I have thrown this aside, as a crowded program furnishes a repletion of technical papers, and I will content myself with a brief review of the history of the Tri-State Medical Association, in order that the new members, not familiar with its past, may intelligently help to shape its future.

The organization of the Society was considered for some years before it was actually accomplished. It was felt that it would be both pleasant and profitable for the members of the medical profession in Virginia, North Carolina and South Carolina to be brought together and to learn to know each other better, since in every other way the interests of the three States were closely identified by location, social ties and commerce. As a result, a few representative men met at Virginia Beach in August, 1898, and appointed a Committee on Organization. The first meeting of the Association was held in Charlotte, N. C., in January, 1899. Dr, W. H. H. Cobb, the presiding officer, said in his address: "It is eminently appropriate that the permanent organization and first regular meeting of this Association should be held in Charlotte, honored as the birth place of American liberty," and I en-

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dorse his words and add that it is a happy coincidence that we meet again in Charlotte to celebrate our tenth anniversary, and to show to the world by our number, our strength and our work that the wisdom of our founders has been fully justified.

It is also a reason for congratulation that the arrangements for our comfort and entertainment on this occasion are in the hands of a Committee of which Dr. Edward C. Register is Chairman, a position he occupied and so successfully filled when we met here before.

The first few years of the life of the Tri-State Medical Association were precarious and full of anxiety for those responsible for its existence. The State Medical Societies were jealous of it, despite the fact that affiliation with them was a prerequisite to membership in it. It was charged that various cliques, rings, specialists and professors promoted its interests for selfish purposes, and many who at one time had been enthusiastic members became lukewarm or antagonistic. During this period there was fortunately at the head of the affairs of the Association a man of unquestioned character, of undaunted courage, of ability, tact and resourcefulness. If any one can claim the credit of being the founder of the Tri-State Medical Association, it is Dr. W. H. H. Cobb, of Goldsboro.

The early dangers referred to having been safely passed, the Association has grown and developed in reeent years, especially under the administration of two of its Secretaries, Dr. R. E. Hughes, of Laurens, S. C., and Dr. J. Howell Way, of Waynesville, N. C. At present, without counting new fellows who will be elected at this meeting, is has over 230 members, and this after eliminating the names of nll old members who have not paid dues for more than one year. The personnel of the Society is of high order, as its members represent the best and most progressive element of the great State Associations of the two Carolinas and Virginia. The annual sessions of the Tri-State Association have been free from political struggles, personal controversies or ethical discussions. The papers read have been of great scientific value, and their discussion, while dignified, have been sharp and vigorous, thus serving to make them more impressive and instructive.

Some of the profession claim that there are too many medical societies—I do not believe this is true, but if such is the case, the Tri-State will continue to live even if tested by the cruel law of the Survival of the Fittest. Attendance on medical societies is a matter of custom, and doctors should get the habit. It is a fact that the busy and successful members of the profession are the men who are the most regular in attendance at county, State, and National Medical Associations. It is reasonable to suppose that the duties and responsibilities they leave at home are heavier, and that the value of the time they lose from work is greater, than would be the case with their less successful professional brother. This condition can only be explained by the fact that it pays to attend meetings such as this one. The advantages are so many and the benefits so various and divergent that it is impossible to tabulate them, and the time at my disposal is too short to elaborate them. It pays a man to help make the session of a medical society a success because of the influence the meeting exerts on the community in which it is held, educating and stimulating the local profession and advertising to the laity that Medicine is not bound by dicta and dogmas, but is a progressive science, ready to discard the old if it is proved to be fallacious, and to adopt the new if it is found to be of value. It pays a man to write a paper for a society because he has to study and familiarize himself with the subject, and thus becomes a better doctor. It pays a man to read a paper because it gives him a legitimate opportunity to show his capacity and experience, thus increasing his reputation, or of presenting new and original views of the treatment of disease, thus adding to the knowledge of the profession. It pays a man to listen to the papers of others because in no other way can he, in the same length of time, get so much knowledge with so little labor. The discussions which follow these papers are especially profitable. In them is an impressive personal element which is totally lost in the stenographic report published in the transactions.

In addition to the educational and professional advantages alluded to, there are the equally important social and personal benefits to be derived by attending medical meetings. The occasion is a holiday, a recreation, a vacation; it breaks the monotony of life and enables a man to do better work when he returns home. It affords opportunity to meet men who are doing the same work in different sections of the country, and results in pleasant and profitable acquaintanceship which often leads to permanent friendship. And last but not least, it brings together men who live in the same community, but who, owing to petty jealousies or lack of time for social intercourse, see little of each other. Either in the session of the society or in the committee room, or on the journey to and from the place of meeting, they are thrown into intimate contact, which frequently leads to explanation of differences, to the appreciа-

tion of good qualities, and to the establishment of the most cordial and friendly relations. Dr. Osler summarizes the subject with characteristic incisiveness in the following paragraph: "The man who knows it all and gets nothing from the medical society, reminds one of that little dried-up minature of humanity, the prematurely senile infant, whose tabetic marasmus has added old age to infancy. 'It is a waste of time,' he says, and he 'feels better at home,' 'and perhaps that is the best place for the man who has reached this stage of intellectual stagnation."

We will now take up the real work of the Society. Owing to the number of papers on the program, it may possibly be necessary to hold a three-days session as provided in Article IV of the Constitution, instead of the two-days session as published by the Secretary in accordance with the precedent established at previous meeting. This question, however, will be discussed by the Executive Committee and brought back later for your decision.

I wish to remind the fellows of the Association that, according to the By-Laws, all motions and resolutions are referred to the Executive Committee without debate. Also that not more than twenty minutes shall be occupied in reading any paper, although it may be published in full in the Transactions; and finally, that in any discussion, no member shall speak longer than five minutes or more than twice on the same subject. These rules will be rigidly enforced, and it is earnestly requested that no exception be asked in any instance. I will also state that while special arrangement will be made to allow papers to be read by our invited guests at a time convenient to themthat as far as regular members of the Association are concerned, the program will be followed as printed, and if an author is not present when his paper is called, he will be relegated to the end of the list.

Retained Placenta—Report of a Case, With Remarks.

By J. N. Upshur, M. D., Richmond, Va., Ex-President and Honorary Fellow of the Medical Society of Virginia, of the Richmond Academy of Medicine and Surgery, of the Tri-State Medical Associan of the Carolinas and Virginia. Honorary Fellow of the Medical Society of West Virginia, etc.

Usually the experiences reported are those in which success has atteded our efforts for the relief of pain or the saving of life. In the following remarks, I desire to call attention to a case in which in my own experience the conditions were extremely rare, and the termination of the case unfortunate.

Case.—Mrs. R. became my patient in February '06. I found her threatening to abort at about the tenth week. She gave the following history, she had usually enjoyed good general health, was then 33 years old and had been married nine years. She had never carried a child beyond the tenth week, and had had five abortions previous to my being called. She had been under the care of my predecessor for eight years. The abortion came promptly, the uterus was curetted and she was kept under observation for sometime. Subsequently she conceived, had a pregnancy devoid of any note, and was delivered on Dec. 1st,06, of an eight months baby, after a remarkably easy labor. The baby was very thin and frail. The mother's breasts remained perfectly flabby and there was never any attempt at lactation. The baby was handfed and progressed finely and at 9 months old though small, was plump and robust looking. Conception occurred again, I think not later than thirty days after the first delivery. She had again an uneventful pregnancy, and labor was expected according to the best computation I could make, on October 22nd, '07, my calculation being based on the supposition that conception had taken place several weeks later than I was subsequently led to believe that it did. Labor came on September 11th, there was nothing unusual about the first stage, in the second stage the pains though regular and frequent, seemed ineffective and caused much complaint of suffering. After reaching the midplane there was no progress, and forceps were applied. She was very much relaxed. The head of the child was very soft and bones felt loose in the scalp. Three times the instruments slipped although the handles were firmly closed. At the fourth attempt, the head was delivered without the application of any force. The child was a boy, larger than the first child, head thickly covered with hair and finger nails well grown, he was moribund, and required active efforts for twenty minutes or a half hour to resusitate him. The mother was given 3i of fed. ext. of ergot and 1-20 gr. strychnia nitrate, and I attempted the delivery of the placenta, which I supposed had followed the usual course and was lying loose in the uterine canal or vagina.—But failing by the compression method of Crede, I made an examination and found the placenta adherent, uterus symetrically contracted around it and cervical canal only patulous enough to admit the passage of the chord. After persevering effort I succeeded in introducing my fingers into the uterine cavity, the placenta was attached on the left latero-posterior aspect of the uterus rather low down, had a hard, cartlaginous feel, and I was unable even to

raise the edge of it. The patient passed a good night, entirely free from after pains, on Sep. 15th. eighteen hours after delivery, being fully anaesthetized, the cervix was dilated with a steel divulsor and a placental curette, a regular curette, and my fingers, were all used in the effort to detach the placenta, but although persisting in the effort for an hour, the pattent's condition was such as to force me to desist from farther effort, having accomplished only the removal of a small portion with the chord attached. Her condition for some hours was most critical, and it required full doses of strychnia and adrenalin to sustain heart action. In my effort to remove the placenta, I discovered a rent in the anterior uterine wall at the junction of the body and cervix, transverse and about 2½ in. in extent, I could easily measure it my finger in the uterine cavity could be felt through the abdominal wall. She had very little temperature, it ranging from 98.4° to 101.4°, pulse 100 to 110 and of fair voume. On Sept. 12th, 6 p. m., Dr. J.. Shelton Horsely saw the case with me, it being desirable to determine if a complete hysterectomy was justifiable and would give her a chance for her life, he agreed with me that her condition was such as to make the danger of moving too great to attempt it, and that if she reached the hospital safely she would probably die on the table. On 14th she passed two small pieces of placenta, during that day and the early half of the 15th, her condition was so good I felt much encourged about her. On the afternoon of the 15th, I found her with marked symptoms of profound sepsis, pulse thready, respiration sighing, abdomen enormously distended with gas, on the 16th she was decidedly worse, death occurring about mid day.

Remarks.—Until I had this experience, I would not have believed that it was possible for me to fail to deliver a placenta, and to have done so was a source of much chagrin. The uterus, as is well known, during the process of involution succeeding labor, undergoes molecular fatty degeneration, conception taking place before this process is completed it is arrested, and the uterus begins the reverse process of evolution in a softened condition unfit for the function which it is called on to perform. So when the time for the development of the placenta arrives, and its attachment is formed, it becomes fused into the uterine tissue forming tenacious adhesion which in the above case I was unable to overcome. Though the patient complained of the pains in the second stage of labor, in force, they were not of unusual severity, nor was any force used in the delivery of the head with instruments. It is clear to my mind, that the softened uterus could not resist the impact of the head under the expulsive pains, and that in this way the rupture occurred. It must be remembered that the history of the frequent miscarriages during the preceding eight years before she carried a child to term, had weakened and impaired the integrity of the uterine muscle nnd predisposed it to the development of an unusual condition, when conception occurred under the condition described in the case above reported. In my own experience extending over a great many years (40) this case is a most unique one. I am aware of the probabilty of adhesion and consequent retention as the result of diseased conditions of the placenta, oftener syphilitic than otherwise, and am sure that the impreesion prevails that retained placenta is not an uncommon thing, but I am convinced from the research which I have made that from all causes it is not so common as is believed. Dr. H. H. Atwater (American Journal of Obstetricks, Vol. XII pg. 297) in an analysis of one thousnnd cases of labor in private practice, had only four cases, the pacenta having been safely delivered by introduction of the hand. In the last four hundred cases in my own practice, there were three cases, the one reported in this paper, one due to syphilis, the third I do not recall the data, in the last there was little difficulty in the delivery. Could the complication have been foreseen, I am sure that a prompt hysterectomy would have saved life, but I can imagine, no indications by which the complication could have been anticipated. A very interesting feature is the birth of two infants in such a short period of time.

The Treatment of Epilepsy.

By J. Allison Hodges, M. D., Richmond, Va., Professor Nervous and Mental Diseases, University College of Medicine, and Physician in Charge Hygeia Hospital Richmond, Va.

In the discussion of this subject, it is my purpose to discard the scientific study, or even the mention of the numerous remedies that have been suggested, and "found wanting," or that have from time to time, been vaunted as "specifics," and been as quickly relegated to the already overburdened list of proposed curative agents which often have had nothing, even for an experimental basis, except the promuigation of a new theory, or the propagation of a novel hypothesis by some self-advertised enthusiast.

In the course of centuries, the intensely interesting fact that no definite cause could

†Read as leader of debate before the Tri-State Medical Society of N.C., S.C., and Va., Charlotte, N. C.

be logically assigned for this disease, has led even some of the most earnest investigators into paths of the wildest speculation as to the theoretical bearing of certain remedies upon some of its manifestations, and in this way, there is scarcely a drug in the shops that at one time or another has not been regarded and recommended as infallible in the cure of disease. Unfortunately, all these claims have been proved to be false, and we are to-day as helpless to cure epilepsy with one drug, as was our profession five centuries ago.

Within the past few years, however, there have been marked advances made in the treatment of this disease, and my purpose to-day is not to rehearse the classical therapy of the past, but, rather, to discuss only those measures which, in my practise, have seemed to yield such results as would rightfully entitle them to careful professional consideration.

In my personal experience, I have found epllepsy to be one of the most difficult of the diseases of the nervous system to treat, and while I believe that the passing years have added to the stock of my general knowledge on this subject, yet it is not possible for me to name any one remedy, or remedies that I can rely upon as either curative, or in any sense, specific in therapeutic effects.

The continued study of this interesting and humanilarian subject has, however, dispelled not a few vague and illusive theories of mine, and has taught me many practical lessons.

It has taught me in a general way regarding the treatment of this disease: (1) That the idea that nothing can be done by us for the epileptic has for too long prevailed, and that it is high time these poor unfortunates, as well as the laity, be informed that, certainly, symptomatic epilepsy can be, and is often cured, but the cure of idiopastric epilepsy is rare, I personally having never cured a case; (2) that the want of interest, and frequently the carelessness manisested by physicians themselves in this class of patients, often discrediting their own ability by dismissing them with a prescription as useless, as their prognosis is hopeless, is unwarranted and unworthy of their achievements in the battle against other diseases, which in the near past have been apparently as hopeless as this, notably consumption, bright's disease and many forms of paralysis, but which under the increased interest, zeal and research of the profession have now come to be diseases not so much to be dreaded as to be combated; (3) that neither medicine nor surgery *per se* will efficiently and permanently cure this disease, and that we must have the greatest respect for the smallest things, and this respect must never relax; (4) that the treatment of a single organ in the body for a cure of a disease as violent and as destructive as epilepsy in its essential type, is as unreasonble as it is unscientific, for while an irritant cause may be removed, yet the habit may, and does generally remain, and neither procedure alone will cure the disease; (5) that the day of routine bromide dosing is happily passing, for the disasters from the remedy, carelessly administered, have been found to be as great, or greater than the ravages of the disease itself; (6) that there are "epilepsis and epilepsis," the forms, varieties and subdivisions being many, and that to properly treat epilepsy, its peculiar type and cause must first be carefully and systematically studied; and, lastly, that treatment begun early and long and faithfully maintained, consisting of measures that are prophylactic, hygienic, medicinal and surgical, if need be, hold out the best and only hope for permanent relief from this terrible malady, which makes of its victims, civil and social outcasts, and consequently calls for the most strenuous efforts on the part of the earnest and conscientious physician.

In the study of the individual cases that have come under my care for treatment, I have striven always to bear in mind that epilepsy is often a symptom, and that the treatment of each separate case was to be dependent upon the solution of the important question of diagnosis. I usually ask myself, is the case in hand symptomatic of a lesion of the brain, of the spinal cord, or of the peripheral nerves; is it an accompaniment of the cerebral palsies of childhood, or does it bear a distinct relationship to heart disease, nephritis, mulnutrition, or marked disturbances of the gastro-intestinal tract, the sexual organs, or the eyes?

Again I find no two cases alike, almost every one having its own peculiarties, and it is often a most difficult task to decide whether the attacks constitute alone the disease, or whether they are merely a symptom of a primarily affection which is attended with still other manifestations, and the determination of this point also influences the proposed line of treatment.

These facts settled and organic lesions excluded, the matter of treatment is determined, and briefly speaking, this resolves itself into prophylactic, constitutional and specific measures, according as the disease appears to be symptomatic, or genuine epilepsy.

Prophylactic Treatment :—

The first and essential rule of treatment, which is applicable to all clases of cases, is that, remembering the epiletic age is from

five to fifteen years, that when there has been a convulsion, and especially a recurrence of a fit between the ages of five and ten, the case should excite apprehension and should call for the most diligent treatment, and this treatment should be kept up constantly for at least three years after all attacks have ceased. I believe this to be a most important point which is often overlooked by the practitioner, and especially by the family physician.

Constitutional Treatment :—

This method of treatment seeks to use those agencies which tend to decrease neurolgia proliferation and increase vasomotor tonicity of the system. Arsenic, mercury and iron, the albuminate and peptonate, fulfill the former indications, and the use of water, by means of cold sponge baths, wetpacks. showers, jet douches etc. according to the opportunities of the patient, fulfill the latter.

Daily work in the open air, or at a trade that is congenial, has also been found to be mentally, as well as physically hygienic, and quiets and steadies the nervous system, sometimes absolutely checking the disease.

The next most important factor in the line of constitutional treatment is the elimination of the waste products of the system, and the consequent prevention of autotoxemic conditions resulting from intestinal decomposition.

This is best obtained by an absolutely aseptic and non-irritating dietary with dimunition of salt, such as milk, meats in moderation and eaten slowly, and bread. Proper attention to the frequent constipation and dyspepsia is of course, necessary, and must be rigidly observed and enforced.

Hydropathic methods, by means of Baruch baths, if obtainable, hot packs, the free injection of large quanties of water between meals, etc., are most important adjuvants to this end. Sinusoidal electricity, if available, is also to be recommended as an efficient agent in assisting metabolism, and correcting specific systemic poisoning.

In my opinion, our profession has not laid sufficient stress upon the toxic condition which exists in so many of our patients suffering from this disease, and which arises from deep-seated errors in the fundamental principles of nutrition. If we would apply to many of these cases, the maxim of "clean out, clean up, and keep clean," which has for the most part, and I believe very illogically, been relegated almost entirely to the realm of surgery, and insist, furthermore, upon our patients learning the value of work, which would bring about a self-forgetfulness and satisfaction, if not pride in life, our results would be far more brilliant. and much more successful.

In fact, I have seen more than one confirmed case entirely cured by these means alone. The methods indicated imply perseverance, skill and tact upon the part of the physician, but is not the result worth while?

The eliminative method, of course, also presupposes the removal of all external irritants as well, but I believe the importance of reflex irritations has been much overestimated, except those arising from the gastro-intestinal tract, as mentioned above, the sexual organs, and the eyes.

It is a useless task, it appears to me, to argue that the treatment of a single organ will cure a destructive disease like Epileysy, which in its very nature must affect the whole body, and consequently, clipping eye muscles, for example, would not in my opinion be expected to cure anything more than a pseudo-epilepsy.

Generally speaking, not only must the cause be removed. but there must be a correction of the established habit. The physician here has a double problem to solve, and should not be satisfied with the accomplishment of but the half of his task.

Alterative remedies such as arsenic, sajodin, the iodides etc., are indicated as "habit breaking" drugs, and in conjunction with theusual constitutional measures detailed, are of great assistance for this purpose.

Specific Treatment:—

Without enumerating the drugs which hold a reputation as anti-epileptics, I will say that the most valuable of the so-called specific drugs are the bromides and belladonna. All of the bromides act alike in this disease. and if one one does not diminish the attacks in number and severity, another will not. They all act alike, also, on the patient's system, all being depressive, if too habitually used, to the higher nerve centres, and if exhibited for a long period, it often requires a trained observer to distinguish between the symptoms due to the drug, and the symptoms from the disease itself. While I believe that the professioa is under a debt of lasting obligatien to Locock, who in 1853, introduced the new era in the treatment of this disease, by suggesting the bromide of potassum for the control of the convulsive manifestations, yet The abuses of the bromides in the therapy of epilepsy are, in my judgment, often graver than the advantages of the remedy.

I believe further, that the bromides *per se* are powerless to cure epilepsy, for rationally, a reconstructive, and not a destructive medicine is indicated.

That they have the power to suppress the convulsive phenomena, and occasionally

for long periods, no one will deny, but I contend that suppression of the convulsions alone is not the cure of the disease, and that it is irrational and illogical to give such a remedy without regard to the cause, or the type of the disease which is being treated.

Its careless admtnistration and wholesale employment have, I repeat, produced drug symptoms as dangerous, as debilitating, and as destructive as the disease irself.

Its guarded use, however, I believe lieve to bc necessary in most cases, but I would insist upon as small doses as possible to control the convulsive seizures, and give this dcse always largely diluted with water, preferably aerated, and while so doing, never neglect for one day, or one hour, the skin and the bowels of the patient.

It is not necessary to produce "bromism" to get beneficial results; it is better not to do so.

It is well to remember too, that anemic, nervous epileptics who lead a sedentary life are improper subjects for the bromide treatment, the Ferrocyanide of Iron being a more suitable remedy.

The bromides lessens the fits in about 80 per ct. of cases, and do no good or do actual harm, as regards frequency of attacks, in from five to ten per cent. of cases. The The best bromide salts, in my experience, are those of Strontium and Sodium, as these are usually best and longest borne by the stomach, though occasioaally a change, or combination appears to be advantageous.

One of the best adjuvants to the bromides, as Seguin pointed out, is chloral hydrate in very small dosage, or the eyes and stomach of the patient may become affected.

Children bear proportionately large doses of the bromides, and if an adjuvant is required to control the fits, oxide of zinc is useful in these cases.

In some of the special forms of epilepsy, ceriain other remedies have special value, such, for instance, as urethane, or the actual cautery in the Jacksonian type, sodium salicylate in the lithaemic form, etc.

As a rule, it is best not to use counter-irritants in the usual types, nor is it well to use such remedies as nitriate of amyl to prevent impending attacks. In status epilepticus, morphine is dangerous, venesection and large chloral enemata yielding the best results.

In the vain hope of effecting a cure in many cases of long standing and which were uncontrollable by bromides, regulation of diet and proper mode of life, physicians of a generation ago were prone to suggest "surgery and see what would happen." This spirit of expectancy, and, in a sense, of desperation has not yielded satissactory results, and it is an interesting index of how completely the standpotnt of generations ago has been changed, when, now, many efficient and fearless operators recommend conservatism in the surgical treatment, of even traumatic epillepsy. This tendency to differentiation of the cases is a wholesome sign of thoughtful conservatism, and will save us in the future from the necessity of apologizing for reckless interference.

The old operations of ligation of the carotids and of the vertebral arteries have long since been discontinued.

With our present knowledge of cerebral localization, cases caused by removable intracranial lesions should be operated upon, if the localization of the latter can be definitely made, and the convulsions constantly occur in the same group of muscles and extend in a characteristic manner, or if transient hemipareses occur, but the nature and location of the lesion should always be determined, as well as the accessibility of the area, before surgical intervention is advised.

Whenever the disease can be distinctly and directly traced to a blow on the head, the question of trephining should be considered, and with such a history of fracture, or present evidence of fracture, or even evidence of severe head injury with directly resultant symptoms of the disease, trephining is justifible.

It is exceedingly questionable, however, whether the epileptic habit can be cured by an operation of any kind. On the whole, and briefly stated, surgery can do but little for acquired, and nothing for idiopathic epilepsy.

The Colony Plan, representing, as it does, the best features, and in the best manner, of the points in the line of treatment already detailed, has been proved to be the most eminently scientific, systematic and successful method in the treatment of this disease.

Confusion and Errors in the Diagnosis of Rheumatism.*

By Lewis M. Gaines, M. D., Atlanta, Ga, formerly Professor of Physiology Medical Department Wake Forest College, Wake Forest, N. C.

It is doubtful whether one man out of ten, who has reached middle life, would when interrogated, reply that he had never had what is called rheumatism. And yet it is likewise doubtful whether more than one of the ten ever had what should be called rheumatism. Thus is there a belief—widespread among the laity but by no means confined to it—that most deep seated pains

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in the trunk and limbs, not admitting of any very direct explanation must perforce be a mysterious manifestation of that elusive malady. Perhaps some day not so far distant, some one will be found who, craving Dr. Oliver Wendell Holmes' pardon, will write a parody entitled "Rheumatism and Kindred Delusions."

That confusion and errors attend the diagnosis of so-called rheumatic affections all must admit. I would make a distinction between confusion and error. By confusion I mean a frequently unavoidable indecision as to what to call a disease, correctly diagnosed, or a lack of uniformity in designating the same morbid condition, often due to the retention of misleading synonyms. By error I mean a mistaken diagnosis.

Confusion in Diagnosis.

The confusion which exists in designating so-called rheumatic diseases results largelv from the present unsatisfactory nomenclature. As Rotch points out, while pathological classification has been steadily keeping up with pathological research, and terms in physical diagnosis revised and improved, our nomenclature of diseases has not kept pace with our knowledge of them. The term, rheumatism, is still indiscriminately applied by many to all acute or chronic pains referred to joints and their neighborhood thus including tendons, fibrous tissue and muscles. In fact, most unaccountable pains in the limbs and not a few in the back are labelled rheumatism. In many cases, certainly, this is due to our present insufficient knowledge concerning the etiology of these conditions. Slowly but surely we are advancing in our knowledge in this direction. Many cases formerly designated rheumatism have been relegated to their proper place in the nomenclature so that in modern literature to a large extent the term is limited to joint affections. A step further has been taken. Since many of these conditions are infectious in their nature they have been properly designated "arthritis," which term should always be exclusively whenever one can be reasonably sure of the infecting organism. For example, gonorrhoeal arthritis is preferable to gonorrhoeal rheumatism.

Further than this, we should discard the term "acute rheumatism," which means almost anything to the laity, and substitute the term "rheumatic fever." The evidence is multiplying that this disease is comparable to other acute infectious fevers such as typhoid fever and cerebro-spinal fever, that it is a general infection with local manifestations in the synovial and other serous membranes. The large amount of critical work which has recently been done in isolating the micrococcus rheumaticus is being tentatively accepted by many authorities though questioned by others. The attempt to prove the organism an attenuated form of the streptococcus has probably failed and we may look forward to the possible establishment of the micrococcus rheumaticus as the cause of the disease. A recent paper of Dunn, of Boston, on the clinical manifestation of the disease in children tends to support the view that it is an acute infectious disease.

In case of the term "chronic rheumatism" the problem is more complex, because such a large group of affections have been placed under this head. Old terms die hard. Pet phrases long used in connection with certain diseased conditions have their usage sanctioned, oftentimes, by habit rather than by justified knowledge. I trust I do not offend some or weary others by thus referring to the so-called "uric acid diathesis," or "lithaemic condition." This term was introduced into medicine many years ago by the celebrated Murchison to designate certain functional disturbances of the liver connected, as he supposed, with the elimination of uric acid. "Behold what a great matter a little fire kindleth." Osler tells of one writer who enumerated not fewer than thirty-nine separate morbid conditions associated with lithaemia! Among these thirty-nine we may safely conclude rheumatism occupied a prominent place.

The basis of all knowledge concerning morbid changes due to uric acid must necessarily rest upon an adequate conception of the normal metabolism of this substance in the body. And yet there still exist many gaps in the chain which is being forged to connect the events of uric acid metabolism. We are fairly sure of its source, we know many of the organs in which it is elaborated; but these are only isolated events, and as pointed out by Mendel in an excellent critical review of the most recent work done on uric acid origin, examination of the urine alone means nothing, for a diminution may indicate diminished production, or increased destruction as well as decreased elimination.

Furthermore, assertions of its pathological significance are almost entirely hypothetical. After an exhaustive discussion of the entire work on uric acid, which had been done up to 1905, Barker concludes that gout is the only disease in which there is yet any strong probability that disturbances of uric acid metabolism are directly and mainly responsible for the clinical symptoms. And in his closing sentence he even doubts its significance in gout when he says, "After all it may turn out that disturbances of metabolism of a nature unguessed as yet by us may

be more important in the pathogenesis of gout than the disturbances of uric acid metabolism." Since Barker wrote these words nothing has been done to disprove the assertion. That uric acid is of all the purin bodies the least toxic when injected into animals, who show no general symptoms after large doses, is significant. The practitioner who believes his patient suffers from "uric acid diathesis" naturally directs all his energies against uric acid. But here is experimental evidence at hand to show that he can have no means of knowing anything about the amount of production, destruction or elimination, and granting he did, he could not then show its toxicity to be sufficient to account for the symptoms. Surely all that can be asserted is that metabolism is disordered.

Although our knowledge is still very incomplete concerning the origin of the so-called rheumatic pains due to the so-called "uric acid diathesis," light is being shed on the subject by the careful study now being given to auto-intoxication. Very suggestive is a recent paper of Forscheimer, who reports a series of 77 cases, diagnosed on excellent clinical and therapeutic evidence, chronic intestinal auto-intoxication. He shows that of his 77 cases, 50 showed symptoms or diseased conditions in joints or muscles. Of these 50 cases, 19 had gouty joints, 24 muscular rheumatism, 13 rheumatic muscular pains which were transitory. A large percentage had indicanuria which is undoubted evidence of intestinal putrefaction. Shall we not, then, at least consider a revision of our views regarding the large group of rheumatic pains we have been referring to uric acid? All modern work is surely pointing to the belief that uric acid is only an expression of disordered metabolism, and should no longer be regarded as a causative factor.

If we will consent to call muscular rheumatism, myalgia, believing that it is inflammatory in its nature, we shall have left as a common affection at least, only that chronic condition of stiff joints in elderly people, which may with propriety be called rheumatism for want of a better term. Perhaps later we may discard even this, and the much abused long suffering scapegoat will be laid at rest.

Errors in Diagnosis.

If the present confusion referred to can be avoided by a proper relegation of terms, errors in diagnosis will be less frequent. I desire to call attention, however, to errors that are not infrequent in three groups of cases.

First, the mistake of confusing septic pyaemia and rheumatic fever. The mode of onset is frequently quite similar, though a definite chill is common in sepsis and rare in rheumatic fever. There is still fresh in my mind a case in point, which I recently reported in the Journal of the American Medical Association. A lad of thirteen received a wound while playing basketball, and suddenly, three weeks later, had a chill, which was followed immediately by the development of acute arthritis. The physician diagnosed rheumatic fever. When I saw the boy a week later, he had a severe poly-arthritis, fever, and endocarditis—quite like rheumatic fever. But he had also a diffuse swelling of the limb whereon the wound was, and a large amount of exuding serum, just under the cuticle. A smear showed streptococci, which were also abundant in the urine, even forming renal casts. The conditions under which a case of this character occurs, together with discriminating tests, should clear up the diagnosis.

Second, failure to recognize certain types of rheumatic fever in children. Dunn, of Boston, has contributed a valuable paper on this point as the result of a critical study of 300 cases of rheumatic fever in children. He finds the disease often presents peculiarities in early life, the most striking of which are the comparative mildness of the articular manifestations associated with the relative frequency of cardiac involvement, which is often severe, and may be the first sign of the disease. So impressed is he with these results that he believes any acute infectious disease occurring in a child, in which no other evidence of localization occurs except in the endocardium, pericardium, or joints is probably rheumatic fever.

Here then is the clinical evidence by which it seems probable that rheumatic fever is an acute infectious disease, and that cardiac involvement is not necessarily a complication, but in many cases a primary manifestation. To guard against error, then, the evidence of the heart alone must be as valuable as that of the joints alone. Needless to say, here is another reason for always examining the heart with exceeding care. The application to prognosis and treatment is evident.

Third, recognition of the true nature of a group of cases heretofore explained by that mystic phrase "uric acid diathesis." From the work and conclusions of Forscheimer, and others, we must believe that many such cases are suffering from the effect of toxines derived from the putrefying contents of the intestine. Certainly treatment directed against this condition is frequently attended by the happiest results. At the same time Forscheimer warns against ascribing too much importance to intestinal auto-intoxi-

cation in every case. The main points in the diagnosis are the presence of Riggs' Disease, functional changes in the colon, demonstrable retention of feces, indicanuria, headaches, cardio-vascular symptoms, joint and muscular symptoms. Here certainly is a more tangible cause to which rheumatic pains may be ascribed than to uric acid, for we know the products of albuminous putrefaction are toxic. Should we not accept this view as a working hypothesis, if it serves to direct successful therapeutic measures?

As a remedy for errors, allow me in conclusion to make a plea, first for a better understanding of pathology—a pathology which is not thought of as unpractical or visionary or barren of application, but as stimulating and helpful and borne constantly in mind to illuminate the clinical picture.

In the South there is a sad lack of opportunity—perhaps it is inclination—to study pathology first hand in the autopsy room. Some weeks ago when in one of the largest and most progressive cities in the South, a medical center, where six hundred medical students flock annually, a prominent physician told me it was the rarest thing for an autopsy to be performed in that city, and that he did not believe a microscopic examination of five tumors a year were made there. Surely this is a distressing condition if we are to believe that pathology is fundamental.

Secondly, I would make a plea for a more painstaking careful examination of patients. It is a threadbare but truthful charge that the majority of physical examinations are superficial. A urethral examination may tell an interesting story about the cause of puzzling joint symptoms; a faint heart murmur may shed light on the reason why a child is so anaemic and has persistent "growing pains" about the joints. In this connection, I shall never forget the case of a long lean negro youth who came into Dr. Osler's clinic during my student days. He complained of pain and stiffness in his neck and general weakness, associated with difficulty in walking, and shooting pains in his limbs. He served as the basis for a most excellent discussion of multiple neuritis. Some days later the boy appeared again looking more distressed than before. It occurred to Dr. Osler to not only look into his mouth but to feel in it. A large fluctuating retropharyngeal tubercular abscess very readily gave the diagnosis, and Dr. Osler, with his characteristic candor, said that he had himself learned another lesson.

From what we are led to suspect concerning the etiology of various so-called rheumatic affections we may infer that not alone the tongue but the mouth and throat as well are the root of all evil. As examples consider the association of rheumatic fever and tonsillitis, and that of Riggs' Disease and chronic intestinal auto-intoxication, to say nothing of the epigrammatic assertion that most men dig their graves with their teeth.

When reasonable doubt exists every method of diagnosis at command should be employed. The microscope may show urate crystals from suspected tophi characteristic of gout, or, as in my case, streptococci in the urine. A radiograph, properly interpreted, may give valuable information as to the true nature of certain chronic joint symptoms, chemical examination of the urine for indican may establish the diagnosis of a high grade of intestinal putrefaction, bacteriological examination of the blood may demonstrate the presence of virulent micro-organisms which may be identified and possibly combatted.

Conclusions.

1. The diagnosis of rheumatism is attended with much confusion and error.

2. This confusion is referable in part to lack of advance in revising the nomenclature, in part to the lack of knowledge concerning the etiology of many rheumatic conditions. The first factor is remediable, the second is slowly disappearing.

3. The term "uric acid diathesis" should be discarded, and uric acid as a cause of disease questioned.

4. Among errors in diagnosis are the confusion of septic pyaemia with rheumatic fever, the non-recognition of certain types of rheumatic fever in children, and failure to distinguish chronic intestinal auto-intoxication.

5. A greater interest in, and better understanding of pathology, and more care in the examination of patients would eliminate many errors.

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Delirium Tremans.*

By Robt. S. Carroll, Asheville, N. C.

The acute alcoholic insanities may be divided into mania-a potu, dipsomania and delirium tremens.

Mania-a-potu. Mania-a-potu is an acute insanity, the direct result of alcoholic excesses in predisposed individuals, following a short period of dissipation. Mania-a-potu rarely attacks regular drinkers. It often appears without warning, the victim being seized with a homicidal or destructive fit, fully as unexpected as the seizure of an epileptic, and like the epiletic victim may be

*Read before the Tri-State Medical Association meeting at Charlotte Feb. 18, 1908.

completely unconscious of his actions or surroundings. Many of the tragedies occuring during drunken furry are those insane acts of man made mad by alcohol.

The distinction being mania-a-potu and delirium tremens is a decided one, the illusions, hallucinations, tremor and terror of the delirient are entirely wanting in the insane rage of the acute alcholic maniac. Practically all cases of *mania-a-potu* occur after short drinking bouts, and in susceptible individuals always follows the use of alcohol even in moderate quantities. The pathology of this condition is that of an acute cerebral congestion resulting from the irritating effects of alcohol. Such being the case, the treatment is clearly indicated. Proper restraint, affording protection to the patient and family. the immediate withdrawal of alcohol, active catharis and light nourishing diet fulfill the requirements.

Dipsomonia. Dipsomania is mentioned only for differentiation. This is a periodic, uncontrolable craving for the anesthetic effects of alcohol. Many dipsomaniacs abhor the smell or taste of any form of liquor. Practically all dipsomaniacs are the descendents of alcohol using parents, and are to a certain extent defective. The treatment of dipsomania is one of the most difficult tasks which taxes the skill and patience of the neurologist, it being, in fact, the treatment of the neuropathic basis. A moderate percentage of those unfortunates are curable.

Delerium Tremens.

Definition : Delerium tremens is that form of acute insanity following a prolonged use of alcohol characterized by delirium, with hallucinations, illusions, tremor and usually marked fear or actual terror.

Etiology: This disorder rarely follows a short spree, but in the great majority of cases is the culmination of a long, hard period of drinking. Some regular users of alcohol may slowly increase the quantity for ten, fifteen or even twenty years, before the attack of delirium tremens occurs. Therelare several misconceptions connected with delirium tremens, one of the most common being that the attack follows the sudden withdrawal of alcohol. This is far from being the case. The real cause of delirium tremens is defective kidney action, preventing the elimination of the products of the metobolism of alcohol, which products, act as toxic agents and produce symptoms markedly different from the effects of alcohol. Not only is the withdrawal of alcohol not the cause of delerium, but careful observation will prove that in the majority of cases, after the system becomes saturated with these products allowed to accumulate therein by imperfect kidney activity, the patient will voluntarily discontinue drinking, and in many cases refuse liquor when offered him. I do not remember having seen this point recorded, yet this sudden disinclination for liquor has been present in the majority of cases which I have seen during the first stage. In my experience albuminuria and casts are usually present. Leimann reports albuminuria in nearly eighty percent. of all cases, while Hertz finds impairment of kidney function in all well developed cases. With this conception of the etiology of this serious disorder the treatment will, I believe undergo marked modifications. Let us remember that the purity of the alcohol used plays secondary part in the causation of the unfortunate condition, for attacks of delerium tremens may follow the ingestion of the highest grade of spirits.

Traumetism, particularly accidental injury, may cause active delirium through neurotic shock even in the absence of alcohol, hence it becomes an active determining factor in the production of delirium tremens in regular drinkers and markedly so when the injury occurs during a spree.

Pathology: Delirium tremens, then, is due to the damaging influences of toxic material produced within the system by the dissimilation of alcohol, which under favorable conditions is eliminated by the kidneys. This poison is a potent cerebral and cardiac irritant, producing intense mental activity and rapid, weak heart, a poison may determine a fatal exhaustion.

Symptoms : The symptoms arrange themselves into two groups, those of the predelirious or prodromal stage and the stage of active delerium. In the prodromal stage, which may last several days, restlessness, apprehension, irritability, sleeplesness, and often nausea and vomiting are present. During this period the patient fails to derive the usual soothing and quieting effects from his imbibitions. Something is wrong, forgetfulness and spurious cheer are no longer in his cups, Recognition of this stage is thoroughlly important in the treatment, for during this period, intelligent control of the patient may prevent the serious stage of active delirium.

The onset of the delirious stage is marked by evidences of false perceptions and conceptions, illusions of sight being the most frequent. The picture becomes a living face, the pillow an animal, the folds of bedding serpents crawling toward and over him, and so on, an endless variety of miserable. fearful and oft times horrifying self deceptions. Illusions and hallucinasions of all the senses may occur. A char-

acteristic, peculiar to delirium tremens is that these false impressions are almost always distressing in nature, and as a result, the patient is frightened, often terrified, some time the frenzy of fear is such as to lead to suicide. The memory of these horrible concepts may be lost after recovery, but in many patients the impressions made are indelible.

In uncomplicated cases the temperatute rarely exceeds 100° when higher some complication is usually present. The pulse however, is out of prepartion to the temperature and is always rapid and frequently weak. Acute cardiac dilatation not infrequently occurs during on attack of delirium tremens.

Diagnosis: The diagnosis in a developed case presents no difficulty. Recognition of the impending danger during the prolonged stage, is less frequent.

It is well to anticipate trouble in the case of a hard drinker, when he fails to obtain sleep from additional quantities of alcohol, or when, with sleeplessness a sudden distaste for his usual stimulent appears.

Prognosis: We must consider an attack of delirium tremens a serious illness. Conservative authorities place the death rate in simple cases at three to four percent, in complicated cases at from ten to fifteen percent. Ordinarily, after an active delirium of from two to five days the patient passes from delirum into sleep, the so-called "critical" sleep, which may last from 12 to 30 hours, and from which he wakens rational, and desiring food. Convalescence is then established.

All patients suffering from delirium tremens are abnormally susceptible to infections, pneumonia being a particularly frequent and fatal complication. Terror, born of the frightful concepts not infrequently leads to suicide. Accidental death resulting from the patient's efforts to escape is another fairly frequent termination. Many of these delirious patients would readiiy leap through a fifth story window as to pass out of the door. Exhaustion and collapse preceed death in a smaller percentage of cases.

Unfavorable symptoms are auditory hallucinations, temperature above 102° convulsions, stupor and coma. If the defective kidney elimination should be the result of an active nephritis, the danger of uremia, wlth coma and a fatal termination is much increased.

Treatment: I have recently taken occasion to look up carefully the treatment given in a number of our standard text books on general practice and mental diseases, and I have been appalled by the number of these authorities, who in the face of our present knowledge of the pathology of delirium tremens, still advise the use of chloral, morphine, synthenic hypnotics, the bromides, alcohol, hyosin, and potent compounds of these drugs in the treatment of this grave intoxication. I mention such treatment but to condemn it. My attention was called to this subject by the knowledge of the following case:—a professional gentleman of less than forty, entered an excellent hospital to be sobered from a spree which had lasted something over two weeks. A man physically and mentally robust, but who had been a periodic drinker since maturity. He rapidly developed delirium, was noisy and violent. On the sixth day he was in come and died on the seventh day. The third day of delirium, with a pulse running from 140 to 160, he received 15 grains of chloral 190 grains of bromide of potash, one and one half grains of and one half grains of sulphate of morphine hypodermically. Within five days, he received a total of 580 grains of potash, 60 grains of chloral, 140 grains of vernoal, one and one half grains strychnine, one sixth of a grain of digitalis, three grains of sulphate of morphine, besides paraldehyde and adrenalin. This man was treated according to the advice of many of our good text books, he was treated by good men; consciensious and earnest, and had the benefit of counsel. Doses were repeated in the vain effort to produce sleep in the face of a fiere cerebral excitement, when sleep did come it was come. We know this case is but an example of the treatment frequently received by these troublesome ucfortunates. The question occurs, what would be the result of administering this quantity of medication to any strong man, unweakened by previous intoxication? Might not the supervention of coma and the endless sleep be reasonably expected? This paper is written to emphasize the real cause of delirium tremens and to protest against the use of additional powerful, vital depressors when the patient is already staggering under a burden of damaging toxic material.

Prodomal stage: The rational treatment of delirium tremens is distiently different as applied to the prodromic and delirious stages. When, as a result of the irritating influences of prolonged or excessive use of alcohol, the kidney epithelium becomes injured and the regular elimination of the products ot alcohol metabolis mare retained in the circulation, the central nervous system rapidly feels the effects of this toxic material and manifests its presence by apprehension, restlessness and insomnia. The first rational indication therefore, is to stop the alcohol and substitute for its stim-

ulating effects such drugs as do not leave the damaging residium of alcohol. It is during this stage that marked relief may be obtaiued bo the use of an active sweat bath, and it is during this stage only that the use of hypnotic or norcotic is safer, for as yet the heart muscle and brain cells have not been seriously damaged and the brain irritation is still so mild that it may be controlled by a moderate dose of sedative. So in brief, the treatment at this stage would be to stop alcohol absolutely, to give moderate doses of strychnine, or much better, hypodermics of spartine sulphate, to administer hot liquid food at short intervals, and to give one 30 grain dose of chloral or ¼ grain of morphine by skin, to which may be added 1-150 hyoseine hydrobromate and 1–500 grain atropin sulphate. If this sedative dose be preceded by a good sweat the conditions are most favorable that the patient will sleep, and that the storm may be averted. I will emphesize however the important point, that while one average narcotic dose is safe during the pre-delirious stage, the same dose with the advent of delirium, becomes dangerous, moreover, it is true wisdom not to push hypnotic or narcotic medication even during the prodromel stage. The patient should, of course, be kept in his room carefully watched as delirum may occur rather unexpectedly.

Delirious stage: As a rule the physician does not see the patient until his conduct becomes so abnormal that his friends recognize the presence of delirium. The irritation to the cerebral cortex has now progressed to the point of active pathologic change. There is practically a meningitis and all of the patient's unreasonable actions result from the cortical irritation. As the cause of this irritation is circulating in the blood, every reason demands its elimination. To add more of the same irritant is but to tax further the patient's vital powers. The skin, kidneys and only less important, the bowels, are the outlets through which we must extract the venom. A free initial mercurial followed, if at all indicated, by a thorcugh saline or ample dose of oil, usually needed. The kidneys have already been over stimulated for days and any dieuretic given must be of a most unirritating character. Fortunately we have in the simple, freshly prepared liquor ammonia acetatis the ideal drug to stimulate both kidneys and skin. It is one drug which cannot be abused, which is always safe in the treatment of delirium tremens. It meets the pathological need of stimulating mildly but actively both sudoriferous renal glands, while supporting the heaat. One half ounce of liquor amonia acetatis may be given every two hours with plenty of water. The patient should receive liquid diet freqly, consisting of milk, butter-milk, milk and carbonated water, simple broths and fruit juices, which the will usually take even in the midst of his delirium if firmly pressed. Of oourse it is understood that the patient be placed in a safe room and all articles dangerous to himself or others be removed, razors, pistols, knives, fragile articles and any furniture that could be converted into a weapon must be taken out of his reach and sight. Unless the windows are barricaded or barred there is no safety above the ground floor. Isolation from the immediate family in particular, should be effected when practicable. Many incidents occur during an attack which can but cause pain. Intelligent attendants are essential, men who can control the patient firmly but kindly.

In planning our treatment it will be interesting to note how nature manages the case when her powers are not too completely paralyzed, by recalling those cases in which the prodromal or early delirious stage ends in a spontaneous, profuse persperation followed by long, deep sleep, constituting the so-called abortive form of delirium tremens. So as in the prodromal stage, a good sweat bath with the head kept carefully cooled by an ice cap and the patient's body protected from chilling after the bath by a thorough rub down with alcohol is a most useful measure. Most practitioners will use strychnine in the effort to sustain the rapid weak heart, but full hypodermics of spartine sulphate fulfill more indications. If, however, the delerium progresses, and the heart becomes more and more rapid until it reaches 130 to 140, even when the patient is moderately quiet, that most admirable agent, the wet sheet pack should be applied. This is my dependence in all severe cases, and with it, spartine, sweet milk, and liquor ammonia acetatis, little more is needed to ideally treat this malady. The wet sheet pack meets two striking indications; it is a sweat bath of prime excellence, and properly applied affords that physical restraint which becomes necessary in so many cases. I find this procedure given in detail in but few of our text books, so I may be pardoned for briefly outlining the application of the wet sheet pack. Three double blankets, a sheet, wo towels, and eightor ten large safety pin sneeded. The three blanknts are spread on the bed each one two or three inches lower than that beneath. The sheet is wrung out of cold water and spread over the blankets. If the patient is extremely weak and cyanosed, a warm wet sheet is used, which is snugly wrapped about him, followed in succession by each of the blank-

ets, the last of which is securely pinned from neck to feet. thus keeping the patient from disarranging the pack. The head should be kept cool with wet towel or ice cap, and quantities of liquids given. I have often seen patients take a gallon of liquid in twenty four hours. The momentary chilliness will rapidly give place to warmth and in fifteen minutes the patient will begin to perspire, in many cases the six thicknessss of blankets will become saturated in twelve hours, if the patient is given plenty of liquor ammonia acetates, and water and liquid nourishment. In well developed cases the patient will continue actively delirious, and at the end of twelve hours the the blankets should be removed and the patient rested by a half hour sponge bath, water at 96° or much better, a 60 minute neutral bath, the patient remaining in the tub and temperature of the water maintained at 95°, following this an alcohol rub is given and the patient is again ready for the pack. I have never had to renew the pack more than the fourth time. Usually eighteen to twenty-four hours of such active skin elimination will wash from the blood sufficient of the irritating poison to relieve the cerebral congestion and allow the patient to pass into that much desired and anxiously awaited "critical" sleep.—The odor imparted to the blankets during this process of active elimination is such as will convince a tyro that something potent and foreign is being extracted from the patient.

The use of copious colonic flushings of normal saline solution after removal from the pack, greatly augments the efficiency of these measures, while with this conception of the malady no patient should be denied the prompt benefits of free hypodermoclysis of physiologic salt solution upon the earliest evidence of failing heart or kidneys. Under such treatment a very low death rate may be assured. This treatment is, I grant troublesome, as compared with the deft prick of the hypodermic. But it is a treatment which meets the real indications, a treatment which produces results, a treatment which leaves the conscience clear, and the treatwent which saves lives. In closing I would call attention to the only good I have seen result from delirium tremens. In treating habit victims I have found no experience so potent a converting powers, as a frank attack of delirium tremens—a man looks, as it were, over the brink, he sees his hell' and is glad to be given one more opportunity to live a temperate life.

Vaginal Cyst.—De Beule (Journ. Med. de Brux.) describes a case of vaginal cyst on which he operated successfully. The patient was healthy peasant, aged forty, married for about three years, and the mother of one child. The history was uneventful until about the age of thirty-four, when, on lifting a heavy weight one day she experienced a sudden tearing pain in the lower part of the abdomen, nearly turning her faint, and obliging her to take to bed. Several days of retention of urine, necessitating the use of the catheter, followed, but in three weeks she was again up and about her usual employments. Menstrual troubles, present already to a small extent, became more accentuated after this, with some dysuria and retention of urine and constipation. A tumor appeared at the vulva a few months after marriage, disappearing in the horizontal position; but at the end of the fourth month of pregnancy it disappeared altogether until after delivery. Then, however, the swelling recurred and gradually increased; but this time, however, instead of being soft and easily replaced inside the vagina. it was hard, elastic, and absolutely irreducible. When it came under the notice of the surgeon it filled the whole vaginal cavity, being about the size of an adult fist, with a very broad pedicle, inserted into the anterior superior cul-de-sac. Per rectum. it was felt projecting into the rectal ampulla, and rising higher than the fundus uteri, which was retroverted. The withdrawal by syringe of a citron-colored fluid proved it to be a cyst, and operation was agreed upon. The tumor was adherent to the posterior wall of the bladder in front, and behind it was so intimately in relation with the peritoneum that a laceration occurred during separation of the adhesions, and a loop of the sigmoid flexure prolapsed into the wound. It was returned, and the operation satisfactorily completed. the resulting urinary disturbances gradually passing off.

The case had been brought to De Beule as one of uterine polypus, and, after ascertaining its cystic nature, the next problem was to determine its origin. A Wolffian and an embryonic starting-point seemed both to be contraindicated, as also the occlusion of separate glands. From the history of the case and the anatomical relation of the parts, De Beule inclines to the view that the strain at the age of thirty-four produced a vaginal hernia, withall its characteristics. disappearing when the pregnant uterus began to rise out of the pelvis. The second tumor he regards as a hydrocele developed in the empty hernial sac, its characteristics being analogous to those of a hydrocele of the testicle and a cyst of the cord.

Observations on Pirquet's Tuberculin Reaction.—Engel and Bauer, Munchener Medizinische Wochenschrift, have tested this form of the tuberculin reaction on forty-eight infants and two hundred and eighty other children. Ths test consists in performing a local inoculation with old tuberculin diluted four times. If the result is positive a red flat papule appears at the site of inoculation at the expiration of twenty-four to forty-eight hours. The originator of the reaction claimed for absolute specificity, and commended it on account of its convenience and freedom from danger. The authors consider, however, that Pirquet's conclusions were founded on insufficient material, and, although they admit there is an intimate relationship between the reaction and tuberculosis, they do not believe that a positive result is always indicative of the disease, Of the forty-eight infants tested, six gave a positive reaction, but five of these appeared from the clinical standpoint to be free from tuberculosis. At the autopsy on one of these no traces of tuberculosis could be discovered. The other 4 did not react to a subsequent injection of tuberculin. Of the 280 older children, whose ages ranged from three to fourteen years, a considerable percentage gave a positive reaction, and for these these authors believe that the test is more reliable. They conclude that the method is of value in making observations on the prevalence of tuberculosis in general, but that in cases presenting diagnostic difficulties it is not likely to prove of great service since its results are more difficult to interpret than those of the injection of tuberculin.

Eugenics.—The new science of eugenics is attracting considerable attention among the world's thinkers. With the breathless haste with which entire nations are pursuing wealth and what it implies, it is opportune that the best minds are devising means to check the inevitable degeneracy. Bodily fitness is as much required to-day as in the days of medieval prowess. The dominance of intellect is as great now as in the golden age of Greece. But we live too fast; the faculties of the mind are exhausted ere they are ripened by experience, the frail body succumbs ere it achieves perfection of contour. Men and women are thrown into the hopper of modern industrial life and come out wrecks. The loss of mental and bodily vigor in the majority of a country's inhabitants means inevitable deprivation of place and prominence in the family of nations. We would better practice foresight. The unfit are no longer permitted to enter our portals on account of stringent immigration laws; hence we cannot excuse the coming decrepitude.

Eugenics, if studied with the sole end of benefitting our race—coldly, calmly, as befits the dignity of the subject—will supply the remedy. As the *Nation* says, however, "its boundaries are yet too hazy. It attracts as votaries men who are prone to slipshod thinking and haphazard generalization." But every new science labors under this disadvantage. Economics, after all these years is still hampered by this element, and the science of evolution is not yet sufficiently advanced to shake off the incubus of crack-brained enthusiasts. Eugenics will grow as a science, because the time has come for its development. What has gone before in statecraft, in sociology, in medicine, has been preparatory. And in the history of the world the careful student will observe that when the times are ripe for a new intellectual movement the stimulus is invariably forth-coming.—Lancet-Clinic.

Leucorrhoea.

exists, or has at one time, in fully 50 per cent. of our women. Wealth and splendor possess no bar to its entrance, it attacks rich and poor alike. The woman of leisure is even more apt to be afflicted with it than her humble domestic, but all in their characteristic manner, in a measure endeavor to keep the fact from their attending physician. As said, however, this condition seems to be undergoing a change, and these cases are daily becoming more frequent to the family physician. Dr. J. D. Albright says: One of the most troublesome cases I was ever called upon to treat was one of ever and recurring liability to faint, in a lady who formerly had an attack of endometris, which had been entirely cured, but which left a stubborn leucorrhea in its wake. The curing of this trouble has made my patient strong, and entirely removed the fainting tendency. In a severe case of the combination of these two affections, after I had exhausted almost the entire materia medica, without more than temporary relief, I found an excellent remedy in Tyree's Antiseptic Powder, which gave immediate relief, and resulted in permanent cure. A trial package will be mailed free of charge to physicians if they will send their name and address to Mr. J. S. Tyree, Chemist, Washington, D. C.

Charlotte Medical Journal

EDWARD C. REGISTER, M. D., Editor.

No. 36 South Tryon Street. - - - -

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THE TRI-STATE MEDICAL SOCIETY MEETING.

Ten years ago the Tri-State (Virginia and the Carolinas) Medical Association was organized and held its first meeting in Charlotte, Since that time both the Queen City and the Association have prospered and grown. And but recently, on the 18th of February, 1908, the tenth annual meeting of this body was held in Charlotte, and the Journal takes pride in saying that it was a most successful meeting, a meeting well attended and full of interest from first to last. It is said that it has been one of the largest and most enthusiastic meetings that the Association has ever held, and in this statement we find special pleasure.

Charlotte is an ideal place for gatherings of this kind, Centrally located it is also accessible to the members, and the hotel facilities are admirable, as is evidenced by the manifold expressions on the part of those attending. And beyond all this, we, of Charlotte, find the very greatest delight in our efforts to entertain those who honor us by their presence.

The Selwyn Hotel was made headquarters for the Association and in its assembly hall the Society was called to order at 10 o'clock, Tuesday morning, Feb. 18, by Dr. E. C. Register, Vice President, and chairman of the local committee on arrangements. Rev. W. M. Kincaid, D. D., offered prayer, after which the chair introduced Mr. D. A. Tompkins, of Charlotte, who made the address of welcome on behalf of the city. He spoke in reference to the progress and developments of the medical profession and its co-operation with sanitary engineering. His remarks were of more than ordinary significance and in direct sympathy with the work of the medical profession.

Seldom does one have the privilege of hearing an address equal in merit to the response made by Dr. J, W. Jervey, of Greenville, S. C., to the speech of Mr. Tompkins. Thoughrful, scientific and well worded, Dr. Jervey's exposition of the principles which actuate the medical profession presents the physician in a new and unusual light. His fundamental proposition was that: "Medicine lives by just those things which it seeks to eradicate."

Dr. Stuart McGuire of Richmond, Va., was then introduced and as president-elect, took the Chair. In his address, Dr. McGuire traced the history of the Tri-State Medical Society from its origin in 1898, through all its vicissitudes of opposition to the present successful and enthusiastic organization. He had much of interest to say in regard to the achievements of the Association, its place as a medical society, and its aims.

Following these preliminary exercises the reading of papers was begun. On the program were the names of nearly one hundred doctors, and most of them read papers. The list was unusually large, and many of the papers were especially noteworthy. The subject of the annual debate was, "The Treatment of Epilepsy." Dr. J. Allison Hodges' paper on Epilepsy was excellent, thoroughly up to date—indeed in advance of most ideas which prevail concerning the best methods of treatment. Dr. J. P. Munroe discussed the subject in his characteristically eloquent and learned manner.

A number of physicians of national and international reputation were guests of the Association. Among these were Drs. W. B. Pritchard, Chetwood, A. H. Goelet and J. A. Bodine of New York City, L. F. Barker of Johns Hopkins, C. A. L, Reed of Cincinnati, and H. A. Hare of Philadelphia. Papers presented by these distinguished gentlemen were heard with the closest attention. In a great many cases visitors come to the medical society meetings removed from the large cities by great distances for no other purpose than to advertise some special method or hobby of their own, to describe some operation so intricate and impossible of understanding that the country doctor, the average surgeon in small towns, finds little value or interest in them. In marked contrast to this rule were the papers by the visiting physicians and surgeons mentioned above. All of them had something to say and they said it in such manner thaf it was clear and concise—valuable information, all of it. The speech of Dr. Reed of Cincinnati, who confessedly aspires to succeed the Honorable and widely notable Foraker as United States Senator from Ohio, showed how little part is taken by medical men in politics, how few are numbered among the lawmakers of our nation. He appealed to the profession to assert itself and assume a larger participation in the affairs of the country.

The reception at the Selwyn Hotel Tuesday night, February 18, was a most elaborate and enjoyable sociable event. In every particular, it was all that such a function should be to be characterized as elegant and delightful. During the hours from 9:30 to 11:30 o'clock several hundred

guest were entertained, and the cordial hospitality extended by the reception committee could not have been surpassed.

The refreshments of salad, ices, cake and punch, were of the qnality and were served in the manner that was entirely in keeping with the occasion.

Nothing was left undone in making this reception all that it shuld have been, and combined with its elegance there was that delightful informality which made it all the more pleasing.

The election of officers for the ensuing year resulted as follows:

President, Dr, Albert Anderson, of Raleigh; Vice-Presidents, Dr. R. C. Bryan, of Richmond, Va.; Dr. J. E. Stokes, of Salisbury; Dr. W. F. Timmerman, of Batesburg, S. C.; Secretary-Treasurer, Dr. J. Howell Way, of Waynesville.

The following were elected to serve on the executive council in addition to those already constituting its membership: Drs. E. G. Williams, of Richmond, Va.; A. J. Crowell, of Charlotte, and A. E. Baker, of Charleston; S. C.

Fifty-seven doctors asked for admission into the Association and all were received into membership. Charleston, S, C., was selected as tde place where the meeting will be held in 1909.

Between one hundred and seventy-five and two hundred physicians attended the sessions during the two days of the meeting. These came chiefly from the Carolinas and Virginia. In every way the Tri-State Association is to be encouraged. It is a healthful body of scientific doctors and a finer set of men has not been seen in Charlotte.

A partial list of the papers read is herewith presented;

"Inebriety: A Variety of Comments," by Dr. S. M. Crowell, of Charlotte.

"The Study of the Eye as an aid to Diagnosis of Systemic Diseases," by Dr. Leland O. Mauldin, of Greenville, S. C.

"Some Pertinent Points on the Proper Control and Examination of a Sick Child," by Dr. G. W. Cocke, of Danville, Va.

"Confusion and Errors in the Diagnosis of Rheumatism," by Dr. Lewis M. Gaines, of Wake Forest.

"A further Report of Tuberculosis Cases from 1898 to 1906," by Dr. J. A. Burroughs, of Asheville.

"Tuberculinum in Pulmonary Tuberculosis—With Particular Reference to the Administration of Dosage and Deny's Tuberculinum," by Dr. Paul Ringer, of Asheville.

"Renal Tuberculosis," by Dr. LeGrand Guerry, of Columbia, S. C.

"What Shall We Do With Our Cases of Tubercular Peritonitis?" by Dr. David A. Stanton, of High Point, N. C.

"Tuberculosis of the Uterus and its Adnexae" by Dr. A. E. Baker, of Charleston, S. C.

"Nasal Obstructions and Nasal Pressure; their Etiological Connection With Various Pathological Conditions," by Dr. Joseph A. White, of Richmond, Va.

"Complications of Chronic Suppuration of the Middle Ear, With Special Reference to Sinus Thrombosis," by Dr. Frank M. Cunningham, of Macon, Ga.

"Report of Interesting Cases," by Dr. E. W. Carpenter, of Greenville, S. C.

"Symptoms and Treatment of LaGrippe" by Dr. F. D. Drewry, of Virgilina, Va.

"Some Phases of Neurological Syphilis," by Dr. William Broadus Pritchard, of New York City.

"Recent Progress in the Study of Typhoid Fever," by Dr. Lewellys F, Barker' of Baltimore, Md.

"Amoebic Dysentery in the Southern United States," by Dr. Thomas R. Boggs, of Baltimore, Md.

"Some Illustrations of X-Ray Work," by Dr. Ennion G. Williams, of Richmond, Va.

"The General Attitude of the X-Ray, of Richmond, Va.

"The New Electrical Currents in the Treatment of Nervous Diseases," by Dr. Charles M. Hazen, of Richmond, Va.

"The Present Status of Therapeutics," by Dr. John C. Walton, of Chase City, Va.

"Local Anaesthesia, by Dr. John A. Williams, of Greensboro.

"Tetanus," by Dr. Charles T. Harper, of Wilmington.

"My Personal Experiences in Treating Appendicitis," by Dr. Joseph Graham, of Durham, N. C.

"The Treatment of Epilepsy," by Dr. Allison Hodges, of Richmond, Va.

"Epilepsy—The Idiopathic Form." by Dr. Beverly R. Tucker, of Richmond, Va.

"The Study of 105 Hysterectomies," by Dr. A. Murat Willis, of Richmond, Va.

"The Ureter—Some Considerations," by Dr. Robert C. Bryan, of Richmond.

"Etiology and Treatment of Hypertrophy of the Prostate Gland," by Dr. A. J. Crowell, of Charlotte.

"Prostatic Hypertrophy," by Dr. Chas. H. Chetwood. of New York City.

"Some Points in Technique of Breast Amputation," by Dr. John A. Bodine, New York City.

"Retained Placenta; Report of Cases With Remarks," by Dr. John R. Upshur, of Richmond, Va.

"Unusual Cases of Ovarian Cyst," by Dr. H. Stuart McLean, of Richmond, Va.

"Ectopic Gestation: Report of a Case,"

by Dr. John W. Dillard, of Lynchburg, Va.

"The Treatment of Endometritis by Irrigation and Drainage," by Dr. A. H. Goelet, of New York City.

"The Treatment of Bright's Disease," by Dr. Benjamin K. Hayes, of Oxford.

"Retention of Urine and Its Relief," by Dr. Owen Smith, of Asheville.

"Report of a Case of Sarcoma of Colon," by Dr. C. M. Strong, of Charlotte.

"Open Method of Treatment of Epitheliomata on Muco-Cutaneous Surfaces," by Dr. W. D. Witherbee, of Charlotte.

"The Out and In door Treatment of Tuberculosis—Illustrations of Methods and the Principles Involved," by Dr. Paul Paquin, of Asheville, N. C.

VIVISECTION.

One hears a great deal these days, as has been the case for so many years that it passeth the memory of man, about the cruelty, the utter heartlessness of, and the lack of any necessity for vivisection. Several years ago the American Humane Education Society offered a prize of two hundred and fifty dollars for the best essay in favor of vivisection and a like sum for the best essay against the practice. In 1906 they again offered two prizes of three hundred dollars each to be awarded in a similar manner, and the reason assigned for this last contest was the fact that a street in that classic birth place of all American hobbies, Boston, had been named in honor of the great French scientist and investigator, Louis Pasteur. Unmindful of all the benefactions of a great man to humanity, forgetful of all the knowledge that his investigations have given to the world, these New England extremists have found a reason in the fact that Pasteur was a vivisectionist to protest against his name being given to a Bostonian avenue.

As a result of the contest, the prize for the best essay against vivisection has been awarded to a woman whose knowledge of the practice is as limited as her prejudice is wide, and whose disregard of the benefits which have accrued to mankind from vivisection is as palpable as her ideas are narrow.

The question whether vivisection is so cruel as to overbalance its value in adding to the knowledge which shall ultimately give to men the control of disease is the real point at issue. Anti-vivisectionists, in their rampant zeal, would put an end absolutely to the practice. They select a few isolated instances in which there seems to have been unnecessary cruelty practiced on the animals used in experimentation; they see the writhings, hear the whine of a frightened animal and straightway the human lives which have been saved, the years added to the sum of life of mankind, all this is blotted out in the swift call for vengeance on him who would dare prick a mouse with a needle. There seems to be a total disregard of the agonies suffered by animals sacrificed to satisfy the demands of the human appetite for food, in comparison with which the sufferings of vivisected animals are as nothing. But it is said that animal food is necessary to men and that the slaughter of animals cannot be obviated: that is one of the exigencies of life. Man's success in the struggle for existence—for life is a struggle, a struggle with fellowmen, with living beings, animals and plants, and with the lifeless forces around us—depends upon superior knowledge. He must be fed; he is justified in killing and eating animals which will furnish food for his sustenance. He is equally justifiable when he kills a frog, a rabbit or a dog, if thereby he adds to the sum of human knowledge, and thus enables men successfully to combat the ravages of disease. It is not difficult to understand that vivisection is justifable when one reviews the vast range of the discoveries due to this practice alone. It is safe to assert that men would still be groping in the darkness and ignorance of medievalism when as little was known as was possibly by sentient beings. Anatomy, physiology, pathology, bacteriology actually depend upon vivisection for such advance as has been accomplished in these studies. Information concerning many of the diseases most deadly to mankind and a knowledge of them such as have given men the means and power to control them, have been found largely by animal experimentation. Truly this essential knowledge might have come after long years of observation and after the unnecessary sacrifice of thousands, even millions, of human lives. Yet even granting that this knowledge could have been arrived at in some other way, any broad-minded, right-thinking person must confess that it were better to sacrifice the lower, less valuable life in order that human beings may be saved.

The anti-vivisectionist finds and selects for purposes of carrying his point instances —some of them true, others perhaps utterly unsubstantiated—in which the vivisector employed methods unnecessarily crude and inhuman, yet even these were to a certain extent justified if thereby knowledge was gained. If no good resulted from the practices we do not in any way consider the experimenter to have been justified. In practically all cases the animal is entirely unconscious, insensible to pain and therefore cannot suffer. The experimenter is never justified in causing pain if it can be avoided,

unless the pain is of advantage to him' Instances such as that of which so much was made several months since, when in one of the Western schools it was said a dog used in some vivisecting experiment was turned loose in the streets maimed and mutilated and left to suffer agonies as a consequence, have been turned to good use by the anti-vivisectionist. Such instances, if genuine, are wrong and indeed cruelly unnecessary. Yet there is no justice in condemning the whole practice and saying that this is quite a common occurrence because these few instances can be cited.

It is said that curare—a drug which paralyzes the motor nerve endings but leaves the sensory nerves unaffected—is in common use in laboratories. As a matter of fact it is not used to any great extent, and yet we claim that even its use is justified if the condition produced by it is of advantage to the investigator.

However, this is not intended as an attempt to refute the arguments of the anti-vivisectionist. More space than is available would be required for a thorough consideration of the subject. It simply seems to us unreasonable and absurd that people can so zealously oppose a practice which has helped to clear up so many dark problems for mankind, which has resulted in such vast good for the human race. The fact that the few instances of unnecessary cruelty can be adduced as arguments against it deserve consideration only when weighed against the genuinely beneficent results of vivisection. If the latter can be shown to overbalance the former—and to an unprejudiced mind this is not difficult—then the cause for vivisection is perfectly clear. For a very scholarly exposition of facts favoring vivisection the reader is referred to an essay by Andrew McPhail, B.A., M.D., of Montreal, published in the January issue of "Our Dumb Animals." Contrast it with the essay against vivisection by Miss Lena A. Britton, of Vermont, appearing in the same issue of the above named paper.

CHARLOTTE SANATORIUM TRAINING SCHOOL FOR NURSES.

The management of the Charlotte Sanatorium, soon to be opened in this city, the erection of which is now rapidly progressing, have issued a very neat folder descriptive of the Nurse's Training School, which will be one of its best and most attractive features. Elsewhere appears an advertisement giving a brief description of the sanatorium and previously we have made mention of it in these pages. A great many hospitals in the South—perhaps the majority of them—have connected with them a training school for nurses and many of them are graduating young women who, as trained nurses, adorn as noble a profession as the sun shines on. The Charlotte Sanatorium will be as complete a hospital as exists in the South anywhere. A modern building designed and erected under the most advanced ideas which govern the architecture of hospitals, will enable the faculty to put into practice every well-recognized therapeutic method, and to do the very best work medical men can do. All these things mean that the nurse must have special advantages of training which she could not get in a hospital less modern and up-to-date. Hospitals have developed wonderfully within recent years; every town of a few thousand inhabitants must now possess an institution of this kind. And along with this development of the hospital the nurse has developed also until today she is indispensable, a necessity. The modern doctor is, in a certain sense, helpless without her.

The Charlotte Sanatorium will be equipped with the latest hydrotherapeutic and electric apparatus, sun parlors, two operating rooms, electric elevators, vacuum cleaning system and private telephones.

The town offers most excellent advantages for such a hospital. A city of forty thousand inhabitants and rapidly growing, no town in the South has before it a brighter future than Charlotte.

The Training School for Nurses will consist of a Superintendent and corps of forty nurses. The Faculty will be composed of the following doctors:

Medicine, Edw. C. Register, M. D., J. P. Munroe, M. D.; Disease of Digestion, W. O. Nisbet, M. D.; Surgery, G. W. Pressly, M. D., C. M. Strong, M. D.; Eye, Ear, Nose and Throat, E. R. Russell, M. D., A. M. Whisnant, M. D.; Genito-Uurinary and Rectal Diseases, A. J. Crowell, M. D.; Cancer and Skin Diseases, W. D. Witherbee, M. D.

The course of instruction consists of a period of three years. Lectures on the following branches will be given by the members of the staff: Materia Medica; Anatomy; Physiology; Fever Nursing; Obstetrics and Gynaecology Hygiene; Accidents and Emergencies; Practical Nursing.

Each nurse before graduation will have had a thorough, practical training in the following departments: Medicine; Hydrotherapy; Massage; Surgery; Eye, Ear, Nose and Throat; Nervous Diseases; Diseases of Digestion; Genito-Urinary and Rectal Diseases; and Electro-Therapy.

Lectures will be given every night from eight to nine p. m.

It is especially desired that nurses will make application for training in the Char-

lotte Sanatorium who have had some experience in other hospitals. They will be given credit for previous training. A feature which is somewhat unusual in this section, but which will doubtless prove very attractive, is the fact that nurses will not be furnished board or rooms in the hospital. They will be paid a salary sufficient to permit them to find comfortable lodging where they may choose.

Dr. W. D. Witherbee or Dr. E. C. Register, of Charlotte, will take pleasure in mailing to those who may desire it an attractive folder containing a description of the hospital and its equipment, rules and regulations for nurses and an application blank for use by those who wish to send in their names.

AMEBIC DYSENTERY.

One of the most highly instructive, among the very numerous papers of great excellence read before the recent meeting of the Tri-State Medical Society, was that presented by Dr. Thos. R. Boggs, of Johns Hopkins, on the subject of Amebic Dysentery. A good many years ago Osler, in his "Practice of Medicine" made the assertion that amebic dysentery is the most common form in this region—referring to Baltimore and environs. Certainly it more frequently occurs than is supposed. Not one doctor in a thousand ever takes the trouble to examine or have examined the stools of patients suffering from diarrhœal diseases of the intestine. When a patient has dysentery, the clinical diagnosis is made and therapeutic measures of greater or less efficiency are adopted in the effort to cure the disease. Does the doctor ever know the cause of the disease with which he is dealing? Is he able to say whether he has a case of amebic dysentery or a case of dysentery caused by the bacillus of Shiga or by some other pathogenic micro-organism? Not unless he has, in connection with his clinical observations, made or had made a microscopic examination of the stools. By this means it is possible to say positively whether amebae are present and if present whether they are pathogenic or non-pathogenic, i.e., whether the case is or is not caused by the amebae. To be able to do this does not require especially great skill as a pathologist or microscopist, nor is it so time consuming as to offset its value to the general practitioner. On the other hand the great satisfaction which comes to one in being able to make an exact diagnosis is worth the trouble; and really the difference in methods of therapy to be adopted according to whether amebae are or are not found will in results more than repay the practitioner.

According to the latest authorities two varieties of amebae inhabiting the human intestine are described and in order to distinguish them the names *ameba dysenteriae* and *ameba coli* have been applied to the pathogenic and non-pathogenic varieties respectively (Councilman and Lafleur). Other investigators have described other varieties, celli and Fiocca, giving six which they say are found in the human intestine. Without attempting to enumerate and describe these numerous varieties, which only complicates the subject, we shall try to lay down a few simple rules by which the pathogenic and non-pathogenic may be differentiated. Primarily this differentiation was based upon the effect produced upon cats by inoculation. One species proving pathogenic, the other non-pathogenic for these animals. It was observed that amebae found in the discharge of dysenteric patients produced typical lesions in cats, while ameboe found in the stools of individuals apparently showing no signs of dysentery produced no lesions. Now while one could scarcely employ this test for pathogenicity in every case, it nevertheless has enabled the differentiation to be the more easily made by other means. But first of all should be given some of the general characteristics of amebae. "They are classed as rhizopoda of the protozoa. They are unicellular parasites possessing an endosarc and ectosarc which can readily be distinguished when the organism is in motion. The endosarc is granular, and usually encloses several vacuoles of variable size. The ectosarc is clear and more hyaline in appearance."

"The parasite moves by means of pseudopodia; blunt processes consisting of the ectosarc are first protruded and into these protrusions the protoplasm of the endosarc appears to flow. The organism is capable of changing not only its shape but also its position and so moves about. It possesses a nucleus which may sometimes be observed in the living forms, but which can be more clearly seen in colored preparations. It is usually placed eccentrically in the endosarc and contains a nucleolus."

"The diameter of these organisms has been variously estimated at from 10 to 50 micra. While they may vary greatly in size in different cases, in the same one they are usually of a fairly uniform diameter. Sometimes in stools that have remained standing for some time, the amebae become encysted. They then appear to be surrounded by a coating of two layers, and it is sometimes almost impossible to differentiate them morphologically from other substances. The outer layer of the cyst frequently presents a warty appearance." (Strong).

Amebae are extremely difficult to grow in pure culture on artificial culture media. So difficult, indeed, that it is extremely doubtful whether it has ever been accomplished, although Kartulis, Celli and Fiocca, and Tsujitani claim to have succeeded in doing so. Musgrave finds them more easily cultivated along with other bacteria.

To return now to the differentiation of pathogenic and non-pathogenic species—one of the most striking points is the distinction between the endosarc (inner granular zone) and ectosarc (outer clear, non-granular zone) of the protoplasm. In the dysenteric ameba this is distinct and clearly defined, while in the harmless one it is not so readily made out, the protoplasm of the ectosarc being not nearly so refractive. In the pathogenic organism the nucleus is placed more eccentrically and is to be seen best in stained preparations; in the non-pathogenic variety the nucleus is small, compact and more readily observed when unstained than is the former. A very important distinction, and perhaps the point to be most considered, is the fact that red blood corfuscles are to be seen in the amebae dysenteriae while they are never seen in amebae coli. The former are usually larger, varying from 35 to 50 micra in diameter, while the latter rarely exceed 25 micra. This point is, however, not to be relied upon since numerous observers have reported very small amebae as the only parasites present in undoubted cases of amebic dysentery.

If the practitioner but keeps in mind the characteristics of amebae which exist in the human intestine he will find little difficulty in saying whether they are present in any given case, provided he have the patience to consume a few minutes in examining the stools. Then having determined their presence it will not be especially difficult to differentiate the harmful from the harmless. It is only necessary to look for the sharply defined zones of endo- and ectosarc, the indistinct, eccentrically placed nucleus and the presence in the ameba of red blood corpuscles.

If physicians would take the trouble to study cases with a view to gaining a genuinely accurate knowledge of the case, its causes, &c., the sum of scientific knowledge would be vastly increased. The fact that one scientific man—although he may be the very highest authority—has said that in these latitudes amebic dysentery is the most common form does not prove it. It may be extremely common and yet relatively rare. Who knows? We wish that doctors could be stimulated to a proper interest in such questions. If one man, or half a dozen men, in any particular community would actually set about making a complete study of any one clinical entity and keeping accurate records thereof, there is no way of telling what might be the result. Contributions to human knowledge are made in just this way. A man need not say that he has not the opportunity or the appliances necessary. Great things have been accomplished far away from the finely equipped laboratories and hospitals of the large medical centres.

REPORT OF THE NORTH CAROLINA BOARD OF HEALTH.

The Journal wishes to acknowledge receipt of the Eleventh Biennial report of the North Carolina Board of Health, an interesting volume containing much information of what is being done by this excellent body. Dr. Lewis, the able secretary of the Board, has accomplished his work with thoroughness and detail as great as is possible. Of especial interest to us in Charlotte is the full report of the investigation of the Typhoid Fever Epidemic which occurred in this city in 1906, or we should perhaps say that special portion of the epidemic confined to Elizabeth College.

The secretary is a most capable officer, painstaking and thorough in his work.

AN OSTEOPATH SHOT.

Down in Georgia the ministrations of an osteopath seems to have so worn on the nerves of a patient(?) that he (the patient) was compelled—so he says—to shoot the doctor in order to get rid of his attentions.

The osteopath, Dr. L. F. Powers, of Columbus, Ga., was shot and probably fatally wounded by Ed Powers. We have not heard the outcome of the case.

WATTS HOSPITAL, DURHAM, N. C.

A magnificent gift for the benefit of humanity is the hospital to be built by Mr. Geo. W. Watts and given to his home city, Durham, N. C. A man of most generous and philanthropic spirit, Mr. Watts is well known throughout the State for his munificence. But of all his good works none deserve so great commendation as this gift to build and endow a modern, up-to-date, charity hospital, an institution badly needed in that portion of the State.

The plans have been drawn by the greatest hospital architect in this country and the contracts were opened about March 1st. According to the plans the buildings will be so erected that additions can be made in future years without in any way altering the original plan or losing the work already done. The buildings for which contracts have been let will cost from $150,000 to $200,000. They will be fire-proof, of the latest and most approved construction and

fitted with every convenience demanded in modern hospitals.

The buildings are to be located just northwest of the city limits on a tract containing 50 or 60 acres. Wide streets are being laid off and macadamized about the property.

Years ago Mr. Watts gave to Durham a small hospital which has been known as the Watts Hospital, and which has been a source of great good to the town and community. We are told that he has given half a million for this new structure. Truly a princely gift and a lasting monument to his generosity. The doctors of Durham are most fortunate, for such an institution is a boon not only to humanity but to the physician.

HOW WILL IT WORK?

At a recent meeting of the Wake County Medical Society the members adopted a resolution finding its origin in the belief that inasmuch as the recent prohibition election in Raleigh, N. C., makes the physicians entirely responsible for the sale of whiskey in Wake county and that it would therefore be unprofessional and unethical to write whiskey prescriptions for other than remedial and therapeutic purposes. Any doctor violating this high privilege by writing prescriptions for whiskey for people whose physical condition does not strictly indicate and demand its use will be considered to have given sufficient grounds for causing the revoking of his license.

Now we believe that no county in North Carolina possesses a body of physicians more honorable or high minded than those found in the county of Wake, and we believe also that the sentiment involved in the resolution above mentioned is entirely correct and pure in the motives which inspire it. And yet in the matter of prescribing it is left entirely with the physician's own sense of honor and right as to whether he shall or shall not write a prescription for whiskey in any individual case. If he says that he considers it necessary for a certain person to have whiskey, who can gainsay his right to prescribe it? Certainly not the laymen, for whatever may be his beliefs in the matter, after all it is more or less a matter of prejudice with him. If he can say the physician shall not give whiskey in one case that abrogates the right in any case. And if the doctor may not prescribe one remedial agent what becomes of his rights as a physician? Take away one of his weapons against disease and logically the law has the right to say whether he shall or shall not use any other drug or, for that matter, all of them. Nor can other physicians justly say another doctor did or did not have the right to prescribe whiskey or to say whether it was his purpose to prescribe it as a remedial agent. The differences of doctors regarding the therapeutic properties of alcohol are notorious. One set will say that it has no place as a remedy in the pharmacopoeia, that it is only a poison and that it should never be used under any circumstances; others take the opposite view, holding that it is a most useful drug, a tissue builder and support and that there are many conditions in which it is absolutely indicated. And between these extremes are those whose views are more moderate. Everybody is aware, or at least believes, that there are physicians who will and do abuse the trust imposed upon them, that they, in many instances write whiskey prescriptions for the money there is in it when they know it is not necessary for them to do it, when no drug at all is needed. Still taking any individual case in which the person for whom the whiskey was prescribed makes a wrong use of it, will it be possible to hold the physician responsible? Morally he may have done wrong to give a prescription for alcoholic stimulant, provided he was not confronted with an absolute indication therefor, and yet, as we said above, it is simply a question of his own conscientious regard for duty and the right. Manifestly it is a problem, the regulation of which possesses most serious difficulties. Its solution has not yet been accomplished and we believe the solution is still to be realized. However, we reiterate our congratulations to the Wake county doctors because of the stand they have taken in this matter. If it accomplishes any good it is worth the attempt.

YELLOW FEVER.

Two cases of yellow fever have been reported at Galveston, Texas. They arrived on a steamship from Brazil which during its passage had five cases on board. Quarantine measures will doubtless prove effective in preventing the disease gaining a foothold in the port of Galveston.

FIVE CHILDREN AT A BIRTH.

If authentic the case of the birth of quintriplets to a woman in Steubensville, Ohio, is extremely interesting to physicians and certainly remarkable. It is said that three of the babies died soon after birth, but that two will live. There were three boys and two girls, all perfectly formed, and their combined weight was twenty-three pounds. The mother weighed less than one hundred pounds.

We wonder what was the state of mind of the father when he saw this vast increase o his family.

THE FIGHT AGAINST TUBERCULOSIS.

The town of Durham is to be commended in the efforts being made there to stamp out the dread disease tuberculosis. The health authorities of that city are making arrangements for an organized fight against the great white plague. Every inch of ground is to be contested and the people are to be given a campaign of education in order to enlist them in the work, for without the co-operation of the people at large the attempt is hopeless. A mass meeting will be held at which time tuberculosis will be the subject of discussion.

DR. L. L. ARDREY.

We are grieved to record the death of Dr. Lucius L. Ardrey who passed away February 12, 1908, at his home in Bandera, Texas. Dr. Ardrey has been desperately ill for many weeks and little hope has been entertained for his recovery. A native of Mecklenburg county, North Carolina, Dr. Ardrey left his home State several years since hoping that he would be benefited by the Texas climate and at times he had shown improvement. His remains were brought to his old home near Pineville, N. C., for interment.

Dr. Ardrey was a graduate of Bellevue Hospital Medical School, class 1896.

SMALL-POX.

Small-pox is reported to be raging in Wilkes county. It is said that considerable excitement prevails, several cases having proved fatal. A strict quarantine has been established but in spite of precautions the disease has spread over a considerable territory, embracing portions of Wilkes, Iredell and Yadkin counties.

Dr. T. E. Armstrong, formerly of South Boston, Va., has moved to Canton, N. C., the thriving town which has grown up around the Champion Fibre Company.

Dr. J. M. Flippin, an active practitioner for the past twelve years in Salisbury, will in a few weeks remove to Oklahoma City, Oklahoma, where he will locate.

The Medical Society of the State of North Carolina will meet in Winston-Salem, June 16-19, 1908. This change of date is probably not generally known among members. We therefore call attention thereto.

The Journal takes pleasure in acknowledging the announcement that Dr. Beverly R. Tucker has located in Richmond, Virginia, where he will confine his practice to Nervous and Mental Diseases. He can be found at 402 West Grace Street.

The Bickett Commission having decided to erect at Morganton, N. C., a Nurses' Building have recently chosen plans drawn by Barrett & Thompson, of Raleigh. The building will cost $25,000 and by removing the nurses from the main building will give room for one hundred more patients.

Review of Southern Medical Literature

The American Practioner and News, Jan. 1908.

Typhoid Fever in Children.—Dr. P. F. Barbour believes that many of the cases of so-called bilious remittent fever or continued fevers with no focalizing symptoms would now be called typhoid. It is safe to call any continued rebelious fever in children typhoid, until the true nature is proved. Laboratory methods will enable one to diagnose enteric fever with scientific accuracy. The Widal serum test is conclusive in over ninety-five per cent. of cases. The isolation of the bacilli from the blood, urine or feces, will settle any doubts. Ehrlich's diazo reaction has often been helpful and is obtained before the serum test is applicable. A blood count is of great assistance, for there is a marked diminution in the hemoglobin, and especially characteristic is the marked leucopenia. None of these measures, however, are practicable unless a trained microscopist and bacteriologist is at hand, and for the average practitioner they require too much time. One must rely in most cases upon the objective symptoms, such as the character, persistence and height of the temperature, headache, delirium, epistaxis, rose spots, enlarged spleen, the pulse, sensitiveness of the abdominal wall or the inner side of the thigh to pressure, the stools, etc. Tuberculosis is the only disease which at times makes differentiation difficult, but its course is different and the prognosis here is absolutely grave, while in typhoid fever the mortality in children under five probably will not exceed two per cent. In the treatment of this disease the author has derived most satisfaction from combining salines with antiseptics, such as sulphocarbolates. There can be no advantage in retaining in the intestinal canal a putrifying mass, the toxines from which are being absorbed and are overtaxing those organs which must handle and eliminate these deleterious and noxious substances. While it is impossible to administer an antiseptic which will enter the blood stream and attack the Eberth's bacillus, yet such as are in the intestinal tract, together with great numbers of other pathogenic bacteria, can be reached and actually inhibited or destroyed. Clinical experience has convinced the author that where the motto was to "clean out and keep

clean" all the unpleasant symptoms were mitigated and the cases pursued a much milder course. Children when treated along this line will not have the high temperature which so often is the cause of the profound exhaustion. Instead of tubbing tepid packs possibly aided by gentle fanning should answer the purpose and will not unduly excite a nervous child.

Virginia Medical Semi-Monthly, Jan. 10th, 1908.

Principles of Surgery Lecture XLII—Surgical Tuberculosis (could)—Tuberculosis of the Perltoneum—Tuberculosis of Lymph Nodes—Tuberculosis of Tendon Sheaths.—By Dr. Stuart McGuire.

A New Method of End to End Intestinal Anastomosis.—Dr. Samuel Lile says everything being sterile the abdomen is opened and the involved intestine brought out of the cavity. After locating that portion to be resected, clamp the center thereof with long jawed forceps. Now strip or milk the gut from the centrally placed forceps, both proximally and distally, and while the stripping fingers are in place, two inches beyond where incision is to be made, put on clamps. The indicated portion of gut is now removed with either knife or scissors. Make the incision exactly at right angles through the intestine to point of division. This is essential to avoid tension or puckering when the ends are approximated. It is always well to leave an artery forceps near the end of both cut surfaces. In cases where the resected piece is only a few inches it is best not to take out any of the mesentery, but fold it on itself and stitch, carefully avoiding all blood vessels possible. If the resection is long it will be necessary to remove a V-shaped piece of mesentery with scissors, taking care to preserve the artery supplying the end of the intestine, proximally and distally, and ligate all bleeding points. With scissors or knife make a longitudinal incision exactly opposite to the mesenteric attachment in both ends of gut and approximately equal to the circumference of same. Mow bring the ends together; evert so as to throw the two peritoneal surfaces in contact, thus making a straight instead of a circular line and stitch them with through and through stitches. Now reinvert and sew with Chas. Mayo's modification of Connel's suture, the longitudinal incisions which have now become one straight cut. In order to prevent puckering sew the angles together first. Be careful not to tie sutures too tightly, thus avoiding constriction and possible sloughing. The through and through sutures may be either interrupted or continuous. It will be seen at once that the special features of this operation are that the sewing is in straight lines with surfaces well approximated, and easily seen and handled. After the bowel has been firmly stitched cover the stitches in the circular wound with peritoneum by a row of Lambert stitches, for fear of possible infection from the through and through sutures, they have been passed through the mucous coat of the bowels first (or from within out). A continuous stream of warm normal salt solution keeps the bowel exposed nearly normal. The bowel being wrapped in sterile towels. The bowel is now replaced in the cavity; the omentum carefully straightened out and the abdomen closed in layers.

Richmond Journal of Practice, Dec., 1907.

Impressions of London Surgery.—Dr. J. R. Eastman says one is impressed by the cool, self-reliant indifference of London surgeons to foreign notions of asepsis, and begins to wonder, in view of the admiral results achieved here, whether Americans are not absurd. And yet, however seriously one may doubt the wisdom of pinning absolute faith to asepsis, one cannot with confidence embrace the London idea so long as one sees the best London surgeons generally placing large drains in wounds which prior to operation were aseptic. It is difficult to free one's self of the suspicion that "there is a nigger in the woodpile." If one does not see it himself, the visitor will be assured daily by his hosts that the English, lacking faith in physical and chemical agents, use more soap and water and common sense than we do. And it must be confessed that from the housewife's standpoint London hospitals are almost without exception quite clean. They are macrosopically aseptic, if indeed they are not so microscopically in the relative sense in which we use this word. Moreover, the English surgeon is sensible. He does not poke his finger into sterile joints, even if glove covered. He practices Koenig's "knife and fork surgery" whenever possible, and in such factors as these, if anywhere, the explanation of the apparent pardox is to be sought. It is more than possible that too great faith in the ability of antiseptics to produce asepsis may blind one as to the value of simple cleanliness as originally produced by soap, water and brush—and plenty of them. So long as the basin of antiseptic lotion is too conveniently near, the soft brush or soapy gauze mop, the use of which involves physical exertion, does not appear as it should to an indifferent nurse or assistant, species not yet extinct in the United States. Among many practices which strike the visitor as being of interest and importance are those

of opening nearly all fractures for accurate coaptation, the slow thirsting out of varicose veins, the use of nitrate of silver, catgut and gauze, the use of sulphur in place of iodoform in tubercular abscesses and sinuses, early and almost immediate operation in hair-lip and cleft palate, resection of the colon and short circuiting operations in chronic constipation, and Bland-Sutton's practice of removing all diseased gall-bladders, broadly speaking, upon the hypothesis that bile is purely excrementitous and that therefore even a gall-bladder is like the appendix—practically useless. Finally one chronicles the impression that London surgeons are intrepid operators and scientific, notwithstanding their methods are stubborn and independent, verifying everything for themselves. They are notably and notoriously cordial to their visitors. Their hearts like their incisions are big.

The Louisville Monthly Journal of Medicine and Surgery, January, 1908.

The Contagiousness of Cancer.—Dr. T. L. Butler believes that the evidence of autoinoculation is so abundant that it seems scarcely to permit of any degree of doubt. As to the modus operandi of this contagion there is considerable difference of opinion. Whether it is required that a portion of the soil, as well as the cancer cell, be implanted, whether the cell alone is all-sufficient, or whether it is necessary that some special form of muco-organism be present, is yet to be determined. We have abundant proof that a small clump of epithelial cells when dropped on a granulating surface will produce themselves if the soil is in proper condition, in the Reverdin method of skin grafting. Although they apparently disappear, enough find lodgement to begin an active cell proliferation. That an epithelial cell has peculiar powers of reproducing itself after a long time under adverse circumstances is shown by the Lusk method of skin-grafting. This form is emphasized in the cancer cell—as Adami states, it gives up the habit of growth and reproduction. There can hardly be a doubt at the present day that carcinoma is primarily a local disease. If so and there is such a thing as autoinoculation it is logical to suppose that if proper conditions prevail there is such a thing as cancer being transmitted from one individual to another. Theoretically the factors requisite for this to take place are such that it renders it an extremely improbable occurrence, yet it is a clinical fact taken from reports of men of undoubted integrity that its occurrence is not so frequent as one would suppose. The limited experience of one observer proves very little unless it is borne out by that of others, but at the present time we must arrive at a conclusion as to several phases of cancer by a comparison of experiences. May the day soon come when its etiology will be plain; then we may be able to attack the subject from a more truly scientific standpoint. The writer has seen three instances where there was some reason to suspect the disease to be due to contagion—a woman with cancer of the breast who had had two sisters to die of cancer, although the ancestry was apparently free—another case where a mother died with a cancer of the uterus; then a son with cancer of the rectum, then the father with the same disease.

New Orleans Medical and Surgical Journal Jan., 1907.

Removal of Hemorrhoids by the Angiotribe Method.—Dr. S. P. Delaup gives the technique of angiotribe operation as persormed under spinal analgesia by Dr. Chassaignac and himself as follows: The patient having been previously prepared and the spinal injection made, is placed in Sim's position. The sphincter is gradually and thoroughly divulsed by making pressure with the thumb or fidgers first in one direction and then in another or with the Cooks speculum. The hemorrhoids are then exposed by everting the anus, and the number, size and location noted. The next step is also common to all methods, determining how many of the hemorrhoidal masses and what ones should be removed. This is best effected by firmly grasping each tumor with hemorrhoidal forceps and making traction so as to put the parts at its base well upon the stretch. The angiotribe—Thuminn—is now adjusted; it will not only enclose the whole of the pile but will reach up to the normal mucous membrane above, so that its vascular supply is wholly controlled. Practically the situation is the same as when the surgeon applies the clamp for the clamp and cautery operation. The portion of the pile that protrudes beyond the angiotribe is now cut flush with the angiotribe knife or scissors just the same as in the clamp and cautery operation. The angiotribe is allowed to remain for four or five minutes. Pending the compression the excised tumor flush with the angiotribe may be touched with a pleget of cotton saturated with pure carbolic acid. The angiotribe is then removed and reapplied as often as necessary; the most aggravated case never requiring more than four applications. When the procedure has been completed there results a well and satisfactorily secured wound, the wound surfaces are in apposition, the perianal skin redundances have been in great part removed, and the traces

of the operation then present to inspection two, three or more small compressed wound lines radiating from the anus. These are gently returned within the sphincter and held in a firm wedge-shaped gauze compress applied over the anus and firmly secured in place by a well adjusted T bandage. The patient is then placed in bed. The rectum should not be irrigated nor any instrument introduced after operation has been completed from fear of tearing open the compressed wound. If the compression has been thorough and if no dressings, packing or tubing of any kind are placed in the rectum there will be comparatively little if any after pain.

Maryland Medical Journal, January, 1908.

Tumors of Lateral Aberrant Typhoid Tissue.—Dr. A. McGlannan says that according to the position the masses of aberrant typhoid tissue are classified as median or lateral. Both groups are divided into superior and inferior according to their relation to the line of the hyoid bone. The median are those occurring in the median line of the neck in the line of the thyroid glassus duct. These are developed from islands of epithelium cut off from the isthmus in its downward course during the growth of the neck. The lateral are those occurring in the line of the great vessels of the neck and the other branches from the arch of the aorta. During the development of the neck and shoulder girdle pressure of the great vessels and developing muscles on the tissues of the lower clefts causes separation of islands of epithelium that later form the lateral aberrant thyroid masses. Schrager suggests that latent aberrant thyroids may occasionally originate either from the normal or supernumerary parathyroids. These separated islands grow in proportion to the normal evolution of the thyroid, and unless they represent a considerable part of the total thyroid material the lateral aberrant masses will give no clinical symptoms. Embryonic separation may strew the entire area with minute particles of thyroid that are without clinical significance or symptoms. However, these aberrant masses are subject to all the pathological changes of the normally placed thyroids and may have any hypertrophy or tumor formation that affects the glands. The common position of the lateral aberrant thyroids is that of the lymphatic glands of the neck and axilla. Adenoma may develop simultaneously in the thyroid in normal position and in the aberrant masses. When these tumors are removed those found in the aberrant tissue may be mistaken for glandular metastasis from adenoma of the normally placed thyroid. Metastatic growth is considered one of the cardinal symptoms of malignancy and therefore it is unreasonable to attribute the same property to a benign tumor.

An important point apparently overlooked by all operators is the condition of the lymphatic glands in these cases. Normal lymphatic glands would prove absence of metastastis. No one has mentioned the lymphoid tissue in describing the masses. It is conceivable that the metastatic deposit may entirely replace the lymphoid cells so that the lymph gland is converted into a nodule of tumor cells, but such complete replacement is practically unknown. Erdhart has shown that the relation of adenoma of the thyroid to adeno-carcinoma is very close, and that in the transition from one type of tumor to the other the histological change is slight and easily overlooked.

The Southern Practitioner, January, 1908.

History of Syphilis.—Dr. J. M. King believes that local venereal disease of contagious character and formidable symptoms was known to all the ancients of whom we have any record. Among the ancient writings of the Greeks, Romans, and Arabians, the following troubles were described: Eating sores of the prepuce and glands; puriform discharges from the urethra; cancer and gangrene of the penis; enlargement of the inguinal glands; tumifaction of the testicles; abscesses, pustules, and gangrene of the vagina. It is cited in Thucydes that the rancous voice, flat nose, ulcerations of the legs and lesions on other parts were the results of venereal disease. Venereal disease offered no grounds for divorce among the Greeks and Spartans. If syphilis existed among the ancients it is probable that it had not attained the virulent and formidable condition of later date. Although the ancients seemed to recognize that systemic consequences followed debauchery they confused physiological functions with diseased conditions. Menstruation was confused with disease of the genital organs. They believed that the menstrual discharge was a combination of the most obnoxious impurities of the body, and intercourse with a woman who had lately menstruated was not permitted under the conviction that it was a source of leprosy and a number of other diseases, either of the skin or genital organs. They held at that time another very peculiar notion as to the cause of genital lesions. It was believed that by abstinence from intercourse the semen became acrid and poisonous, and finally affected the whole economy. They also believed that genital and anal disturbances were due to the liver. John Alummer attributed the cause of syphilis to a morbid condition of the humours which taking origin in the

liver, is propagated to the genital organs. James Catameo believed it to be caused by ageneral conception of the blood produced by poison of the menses and though he began to think that disease of the genital organs was caused by intercourse still he was of the opinion that these persons were especially predisposed and that they had a dry and a warm liver or a humid and cold brain. Even in 1635 John Johnson placed the seat of syphilis in the liver. When we consider the existence of such confusion on the subject of venereal diseases in the seventeenth century we may despair of any type of definite aid or light on the subject from the ancients. Among the Hebrews there is no reference in their sacred writings in the commentary of Josephus in the Talmudical books which verifies the existence of syphilis although in Egypt today the natives designate the disease by the expression "marred Ayout" which means the disease of Job.

Nashville Journal of Medicine and Sugery, January, 1908.

Arthritis Deformans.—Dr. J. V. Shoemaker gives the following under the section on treatment: The treatment should be hygienic, dietetic, electrical and medicinal. The hygienic treatment should consist of plenty of fresh air, sunlight, bathing and massage. The patient should receive a warm bath daily—if possible a vapor or Turkish bath twice a week. If the patient is confined to bed a warm salt water or alcohol sponge bath may be given. The various baths are invigorating and stimulating to the skin. Massage should be employed to better influence the circulation to the affected parts, thus increasing the elimination, tones up and restores the affected muscles and ligaments to their normal condition. Passive motion breaks up the adhesions and creates an inflammation which leads to absorption of the adhesive products. The diet should consist of nutritious, well-cooked vegetables, and especially those containing comparatively large amounts of sulphur and iron in combination such as spinach, corn, lettuce, turnips, cauliflower, asparagus, onions, mustard and horse radish. Cooked beans, peas, barley, prunes, apples and pears contain much nutrition for the nervous system and are a good substitute for the nitrogenous and fatty foods. Furthermore they do not disturb the digestive organs as do the meats and other nitrogenous foods. Stewed fruits should be given for the salts and acids they contain. They are appetizing and have a laxative effect. A proper and suitable diet as outlined is all important in the successful treatment of this disease. We should aim to build up the digestive organs, make the nutritive forces more active, change the state and character of the blood, and thus restore the nervous system to the normal condition, or as near so as possible. Electricity in the form of frictional or static, the galvanic and the faradic alternating, both for the central as well as the local effect is a valuable adjuvant in the treatment. The application of either of the currents named certainly tones up the central nervous system and gives additional vigor to all the glands, both within and without the body. It stimulates the dormant molicules of every tissue in the body and adds to the vigor of the digestive organs. It assists absorption and elimination of all the morbific material in the system. Electricity has equally as good an action locally as it possesses in this class of cases constitutionally. It awakens the activity of the molecules of the affected joints, stimulates the dormant circulation and promotes the absorption of the poured out products. Electricity likewise stimulates the inactive muscles and ligaments of the diseased joints far deeper and better than any other method that we may employ, not even accepting massage.

Virginia Medical Semi-Monthly, Jan. 24th, 1908.

Strangulated Inguinal Hernia in Infants—with Report of a Case.—Dr. J. E. Cannaday says the treatment in most cases is undoubtedly surgical so long as the patient is not moribund. When the patient is seen early after the symptoms of strangulation have made their appearance, and when the onset has not been acute, taxis should be resorted to, and in event of failure the hernia sac should be opened at once. Taxis is thought by some to be more especially indicated in the very young, who are hard to keep clean, and in the aged and infirm who do not bear operation well. Taxis may waste valuable time and may bring about the reduction of hernia en bloc or bowel that has lost its vitality. Violent manipulations may cause tearing of the intestine. Before resorting to taxis the stomach and lower bowel should be irrigated and emptied, the urine should be drawn, muscular relaxation obtained by appropriate posturing and the use of an anesthetic, the hernia should be elevated so as to be the highest part of the body. The fluid contained in the sac when opened is an excellent indicator of the condition of the intestine. If the fluid is ill smelling or contains flakes of lymph the bowel is very likely to be in bad condition. In attempting to make a decision whether a piece of gut is viable or not, the sense of touch may give more information than that of sight.

The lifeless gut is flaccid and has the feel of moist blotting paper. Gray-brown spots are indicative of gangrene. Resection and even the formation of an artificial anus will often have to be resorted to. When there has been much infection the radical operation should be omitted and the wound packed with gauze. In case of doubt, sutures can be placed and left loose to be tied later. When the radical operation is resorted to it is usually best to make use of the simple and time saving methods. The author does not believe that the transplantation of the cord has any particular merit to commend it. Connell and Ferguson are quite certain that it predisposes to epididymitis or other inflammatory lesions. Operation infection should be very rare when a careful rubber-glove technique is followed. After ligating the neck of the sac the author often carries the ends of the suture upward between the parietal peritoneum and rectus muscle and secure the neck of the sac in a higher position so as to obliterate the former funnel-like depression existing at the point of occurrence of hernia, after dealing with the sac the hernial opening is closed by the introduction of sutures of thirty day chromic catgut. The idea suggested by Czerney and later elaborated by Ochsner that if the ring is denuded of its lining before being closed union will be assured and recurrences rare, should be one of the basic principles of surgery of this part of the body. The cord is not moved from its normal position and the superficial is sutured over it with a running suture of plain catgut. The edges of the skin wound are approximated with the usual suture of silk or linen thread.

Texas Medical Journal, Dec., 1907.

Wright's Principle of Vaccine Therapy.—By Dr. H. N. Graves.

The Southern Clinic, January, 1908.

The Future Science of Medicine.—By Dr. J. M. Taylor.

Book Notices.

Surgery: Its Principles and Practice. In five volumes. By 66 eminent surgeons. Edited by W. W. Keen, M. D., LL.D., Hon. F. R. C. S., England and Edinburg, Emeritus Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia. Volume III. Octavo of 1132 pages, with 562 text-illustrations and 10 colored plates. Philadelphia and London: W. B. Saunders Company, 1908. Per volume: Cloth, $7.00 net; Half Morocco, $8.00 net.

The third volume of Keen's Surgery is as beautiful a work as one see. The illustrations are elaborate, and most instructive. A glance at the list of contributors to this volume, including names from both America and Europe surgeons whose fame is limited only by the circumference of the globe—is guarantee of the great excellence of the work now appearing under the editorship of Dr. W. W. Keen, of Philadelphia.

The subjects treated in volume III and the authors are: Surgery of the Head, by Harvey Cushing, M. D.; Surgery of the Neck, by E. W. Andrews, M. D.; Diseases of the Thyroid, by A. Kocher, M. D.; The Nose and Accessory Sinuses, by Harmon Smith, M. D.; Surgery of the Larynx and Trachea, and of the Thorax, by Geo. E. Brewer, M. D.; Surgery of the Breast, by J. M. T. Finney, M. D.; Surgery of the Mouth, Teeth, and Jaws, by Edmund Owen, M.B., F. R. C. S.; Surgery of the Tongue, by J. C. DaCosta, M. D.; Technic of Abdominal Surgery, Surgery of the Abdominal Wall, and of the Peritoneum and the Retroperitoneal Space, by Jno. C. Munroe, M. D.; Surgery of the Oesophagus, by George Gottstein, M. D.; Surgery of the Stomach, by Mayo Robson, F. R. C. S.; Surgery of the Liver, Gall-bladder and Biliary Ducts, by Drs. W. J. and C. H. Mayo; Surgery of the Pancreas and Spleen, by B. G. A. Moyinhan, F. R. C. S.

Thus each chapter is an original and complete monograph by an authority of recognized eminence. The very latest work in the field of surgery and destined to become the standard

Diseases of the Heart. By Prof. Th. von Jurgensen, of Tubingen; Prof. Dr. L. Krehl, of Griefswald; and Prof. Dr. L. von Schrotter, of Vienna. Edited, with additions, by George Dock, M. D., Professor of Medicine, University of Michigan, Ann Arbor. Octavo of 848 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1908. Cloth, $5.00 net; Half Moroceo, $6.00 net.

This adds yet another volume to the magnificent series of English translations of Nothnagel's Encyclopedia of Practical Medicine, appearing under the able editorial supervision of Dr. Alfred Stengel, of the University of Pennsylvania. This volume, the twelfth of the series, contains the writings on the Diseases of the Heart by Professors von Jurgensen, of Tubingen, von Schrotter, of Vienna, and Krehl, of Griefswald. The German edition has been edited with additions by Dr. Geo. Dock, of the University of Michigan, and the work is now even superior to ihe original because it contains not only the work of the German authors, but has been brought thoroughly

down to date by annotation and additions by one of America's foremost medical writers. The many and important contributions in Germany to our knowledge of the normal and pathologic anatomy of the heart, the physiology of the heart and circulation, methods of diagnosis, and the pharmacology of cardiac remedial agents, medicinal and non-medicinal, renders a work of this kind especially valuable since it brings to the great mass of English speaking physicians a reference book of the very highest value. The text has been made very clear and as concise as possible. Medicinal remedies are given in conformance with the U. S. Pharmacopœia.

The Doctor's library is in no sense complete without a set of Nothnagel's Works.

The Pyonex: Its Theory and Practice. By W. B. Rule, M. R. C. S., L. R. C. P. London: John Bale, Sons & Danielsson, Ltd. 1907.

This book contains descriptions of a special method of treatment applicable—according to the author of the book—to everything from Indigestion to Locomotor Ataxia and Spinal Curvature. Pyonex is derived from a combination of two Greek words which convey the signification of pus expeller. The author claims that by the use of the instrument, to which the term is likewise applied, the causes of the disease are expelled or eliminated from the human body. One gets the impression in attempting to grasp the rationale of these methods that the whole thing is quackery-pure bosh. The idea of puncturing the skin, introducing infective micro-organisms which produce a purulent inflammation (for this is really the result of the operation) and then saying that the pus formed is due to the elimination of the causative agents of the disease seems to the intelligent reader a relic of mediaeval days. The book should be consigned to the trash heap.

Eleventh Biennial Report of the North Carolina Board of Health, 1905-1906. Dr. R. H. Lewis, Sect'y., Raleigh, N. C.

Practical Fever Nursing.—By Edward C. Register, M. D., professor of the practice of medicine in the North Carolina Medical College; chief physician to St. Peter's Hospital, editor of the Charlotte Medical Journal. Illustrated; cloth, pp. 352. Price $2.20 net. W. B. Saunders Company. Philadelphia and London, 1907.

The author's object in writing this book in the preface to be "to present to nurses a working text-book that will completely cover the field of practical fever nursing." This he has done well, and in such a manner that we feel sure nurses will find it of great value in this practical branch of their work. In the first third of the book the author presents under the heading "General Considerations" such topics as the sick room, the pulse, the respiration, charts, clinical thermometer, hypodermic injections, hyperdomoclysis, catherization, bedpan, the preparation of the more common articles of diet in fever cases, antipyretics, the cause and contagion of fever, symptoms common to fevers, symptoms referable to special organs. Next he treats of the "Prevention of Fevers," describing the various methods of chemic and physical prophylaxis, disinfection and sterilization, The remainder of the work is devoted to the consideration of the following fevers: Typhoid, malaria, pneumonia, pulmonary tuberculosis, influenza, diphtheria, rheumatism, cerebro-spinal meningitis, puerperal fever, yellow fever, dengue, relapsing fever, bubonic plague, small-pox, vaccination, chicken-pox, typhus fever, scarlet fever, measles and German measles. Each disease is taken up separately and its cause, symptoms, varieties, pathology, diagnosis, complications, prophylaxis, prognosis and treatment given in such a non-technical manner that the practical lesson is evident at once. A nurse cannot act intelligently in the care of fever patients unless she knows something of the disease and its treatment, the various pathologic processes involved, complications, etc.; in other words unless she be something more than a mere automatum. To select this knowledge and to impart it to nurses without carrying them into the domain of medicine is one of the greatest essentials of book-making for the instruction of nurses. This has been accomplished in the work presented under the above title. It is well arranged, the illustrations are clear, the text is full, but not burdened, the workmanship is pleasing, and the whole book worthy of recommendation.—Trained Nurse, Oct. 1907, N. Y.

A Great Opportunity for Sufferers from Nervous Troubles.

The vast number of people who have read and been benefited by Dr. George Lincoln Walton's notable series of papers on "Worry and Allied Mental States," in Lippincott's Magazine, will be quick to seize upon the March issue, which contains the concluding article—"Home Treatment." Each of the previous papers contained advice and suggestions for relieving sufferers from those annoying minor metal ailments with which so many of the sanest of us are afflicted, but this final essay goes more into detail, and those who follow the author's instructions

are likely to avoid paying many a good-sized doctor's bill. For the benefit of people who have not read the other papers, the entire subject is reviewed in brief. As Dr. Walton is one of the most famous neurologists of the day, this is a splendid opportunity for all who are afflicted with sleeplessness, hypochondria, the worrying habit, and similar derangements, to profit by the advice of a skilled specialist, without paying the specialist's usual fat fee.

Abstracts of the Leading articles of the month.

The Heart Rhythm.—Gossage (British Medical Journal) states that there are two opposing theories as to the origin of the automatic power of the heart to beat rhythmically, both of which recognize that the automatic power of the heart lies in itself, and is quite apart from the central nervous system or the circulation of the blood. These are the so-called neurogenic and myogenic theories, implying that the origin of the impulse lies in the nervous and muscular elements respectively. The writer thinks that the complete myogenic theory has the more weighty evidence in its favor and should be accepted until stronger arguments are brought against it. It is not incompatible with any of the known phenomena of the heart beat, while it affords the best explanation of many of them. It is certain that the muscle fibres possess the powers of contractility, excitability, conductivity, and tonicity, and it is probable that these are exercised during the normal beat of the heart without the intervention of the nervous tissue. It is also certain that all the muscle fibres are not capable of building up a stimulus for themselves, but there is evidence to show that certain fibres of peculiar structure possess this property. While certain facts seem to find their readiest explanation in the neurogenic theory, especially the response of the quiescent heart to the stimulation of the accelerator nerve, there are others pointing as strongly to the hypothesis that the heart beat is purely muscular. This conception does not preclude the possibility of the beat being influenced by outside nervous impulses. This would give a sufficient explanation of the large nerve supply of the heart. Attributing the rhythmic power of contraction to the muscle is, of course, only a very partial explanation of the cardiac beat, the cause of which lies deeper in physico-chemical changes in the cells.

Locomotor Ataxia.—Dent (British Medical Journal) holds that locomotor ataxia is essentially a chronic and progressive disease, and that from a strictly curative point of view little can be expected. The course is usually very long—twenty or thirty years. Our aim, therefore, should be chiefly to relieve the symptoms and to arrest or retard the degenerative process as far as possible. Syphilis is responsible for most of the cases. Fatigue, excesses, cold, trauma, overstrain, intoxication, etc., are considered to be exciting causes. If syphilis be treated early and thoroughly, the probability of tabes is only lessened, not removed. The earlier the diagnosis, the better the outlook. Cases showing dyspepsia, neuralgia, burning sensations and numbness in the hands or feet, eye and laryngeal symptoms should always be carefully investigated. A valuable aid in early diagnosis is examination of the cerebrospinal fluid; if there is not excess of lymphocytes present, locomotor ataxia (and also general paralysis) can confidently be excluded. The cases may never advance beyond the preliminary or preataxic stage. Retention and incontinence of urine with cystitis, etc., are common symptoms. Salol and urotropin here give excellent results, and it may also be necessary to wash out the bladder. Dyspnœa or laryngeal crises are, as a rule, not serious and may be relieved by a few whiffs of amyl nitrite or chloroform. Perforating ulcers may form on the foot, and are to be treated by prolonged rest in bed and antiseptics. Fractures of the bones are caused easily, and unite quickly with a great amount of callus, the condition being akin to the arthropathic changes seen in the joints where there is rapid effusion and abnormal movement (Charcot's joints), the knee being the joint most commonly affected. Frenkel's exercises are the best form of treatment for the ataxia, and even the worst cases show improvement. They should be carried out under the eye of the doctor and be persevered with for not less than a month. In certain cases the x-rays applied daily for five minutes to the dorsal region of the spinal column give good results. Baths in general aid the circulation and are refreshing and comforting. Benefit has been noted from the suspension treatment, but it is probably due to suggestion. Both galvanic and faradic currents have been used, but without any great result. Cold and damp climates aggravate the pains. Potassium iodide and mercury are largely given, but have little influence. Silver nitrate in one quarter grain doses often relieves and lessens the pains and does permanent good. Aluminium chloride, gold chloride, zinc phosphate, and arsenic certainly help in some cases. Strychnine is constantly employed for its tonic effect. Phenacetine and

antipyrine are used for the relief of the pains and morphine should be postponed as long as possible. Testicular juice, spinal cord, brain substance, and spermin have been tried, but with very unsatisfactory results. Tabetic patients should not marry.

The Surgical Treatment of Cerebro-spinal Meningitis.—Radmann (Neurolgisches Centralblatt) says the operations hitherto performed upon patients having cerebrospinal meningitis, such as lumbar puncture, drainage through a canula after lumbar puncture, division of the atlanto-occipital ligament, punctures of the lateral ventricles with and without flushing—failed to influence the course of the disease. Neither is radical success from surgical treatment to be expected, since, on the one hand, the disease is not a local affection, such as the ordinary forms of purulent meningitis, but a general infection from the outset and during its entire course, and on the other hand, it is altogether doubtful whether cerebro-spinal suppurations can be cured by surgical intervention, like ordinary suppurations. The meningococcus has an essentially different effect upon human tissue, as compared to the other pus-producers. The subcutaneous injection of their own cerebro-spinal fluid into patients suffering from cerebrospinal meningitis, does not give rise to a reaction of any kind, the meningococcus producing neither single local foci nor abscesses, but attacking preferably the pia. From the symptomatic point of view, also, surgical interference in the early stages is of little value. Lumbar puncture is followed by remporary relief only in certain individual cases. The systematic employment of this procedure for therapeutic purposes is not advisable. The increase in cerebral pressure in the early stages does not require intervention. In the late stages, however, when the major part of the severe manifestations is due to the purely mechanical effect of the increased fluid, the artificial establishment of permanent drainage seems to be of clinical benefit. Since the cerebrum is not permanently relieved by lumbar puncture and simple ventricular puncture, the author in two cases tamponed the lateral ventricles, with considerable, though transitory, improvement of the symptoms. One of these patients survived for ten, the other for seventeen days after the operation. For the better control of the drainage, and for the avoidance of secondary infection during the after-treatment, it is advisable to introduce into both ventricles a silver wire fixture with threads which can be successively withdrawn, thus removing obstruction to the drainage.

The Mechanism of the Reflexes.—Van Gehuchten (Neurolgisches Centralblatt.) believes that reflex movements may be divided into tendon reflexes and cutaneous reflexes. The former are invariably caused by the movement of a single muscle; the latter are mono-muscular as far as clinical skin reflexes are concerned, whereas the so-called physiological skin reflexes are polymuscular. All these reflexes have their immediate centre in the gray substance of the nervous system; but the tendon reflexes, and the clinical skin reflexes, can originate only by the assistance of the white substance. In order to learn the particular part allotted to the white and the gray substance, respectively, it is necessary to study the anatomy and physiology of the spinal cord. Physiologically considered, the cord consists of two organs: an autonomic organ, the reflex centre; and an "intermediary" organ, represented by the nerve-fibres. After the removal of the ascending and descending nerve fibres from the spinal cord, those parts would be left behind which by themselves constitute an independent organ. A spinal cord composed in this manner is capable of functionating, as has been demonstrated by observations upon patients suffering from a complete transverse lesion in the cervical portion. These patients present paraplegia with disappearance of the tendon reflexes, and the skin reflexes of the clinician. However, stimulation of the skin in one of the lower extremities gives rise to an immediate movement. This reflex movement is absolute y involuntary and takes place without any consciousness. Even the spino-spinal fibres (van Gehuchten) are not necessary for the fnnction of this part of the spinal cord as a separate organ, as shown by observations on complete transverse lesions in the thoracic or lumbar segment. The spinal cord may thus be imagined to be made up of as many segments as there are peripheral nerves. Each segment accordingly is the seat of a special reflex. This reflex apparatus is composed of two neurons, one centripetal and one centrifugal. Thus the spinal cord ultimately consists of a large number of units of gray substance, which communicate with peripheral nerves. Each one of these units may be interpreted as a primitive medullary ganglion. By successively adding the fibres of the white substance, we obtain the structure of the spinal cord, such as it actually is. At the same time it will be seen what changes in the function are brought about by this addition. These primitive ganglia are connected with each other by nerve fibres (spino-spinal fibres), which results also in a communication between a centripetal fibre and many centrifugal fibres. Hence, the stimulation of one

centrifugal fibre may be transferred to a large number of motor cells. A polymuscular movement results, which is at the same time co-ordinated. The spinal cord thus also has an influence upon the co-ordination of movements.

Higher nervous centres enter into communication with this complex of ganglion cells and fibres, and the bulbar centres communicate with the individual centres located in the brain, especially those which are connected with the optic nerve and the cortical centres. The fibres passing from the two above-mentioned groups to the medullary ganglia, permit the origin of the tendon reflexes which can be provoked by tapping upon any voluntary tendon. The fibres coming from the cortical centres exercise a sort of brake-like action, diminishing the intensity of the skin and tendon reflexes, and at the same time giving rise to a new reflex: the cutaneous reflexes of the clinician. Thus, three kinds of reflexes originate from the spinal cord: (1) The skin reflexes of the physiologist, which are exclusively of medullary origin. (2) The tendon reflexes, which have their centre in the spinal cord, but at the same time require the assistance of other fibres. (3) The cutaneous reflexes of the clinician, likewise from reflex centres in the spinal cord, but becoming active only through descending fibres which originate from cortical centres. This division is of great clinical importance. An old physiological law teaches that the higher nervous centres act upon the lower ones after the fashion of a brake. This law is not applicable to man, although this brake-like action as such does not exist, but it is exerted exclusively upon the true spinal cord reflexes (the physiological skin reflexes). This explains at the same time why these reflexes are the only ones to be increased in complete transverse lesions in the cervical portion. A study of the reflex movements shows the great importance of the sensory nerve fibres, and illustrates the difference existing between the number of centripetal fibres—(1,300,000 in the spinal cord—and of centrifugal fibres—(400,000 in the spinal cord). The importance of these sensory nerve fibres is such that it may be stated that without them, life itself would be impossible. Thus, instead of saying, with the philosopher: "I think, accordingly I am," the anatomist has a better right to assert: "I am, I live; hence, I am stimulated."

Diabetic Neuritis.—Pavy (Lancet) points out that an altered vascular state emanates from nerve lesions through the influence exerted on the functional capacity of the vessels. Nutritive operations are liable to be influenced secondarily. He refers to the trophic conditioa arising from diabetic neuritis, and says that trophic lesions may occur in connection with diabetes as a primary result of the effect of the sugar abnormally passing through the system. Diabetic neuritis is a very variable affection with respect to location, but its development exhibits a symmetrical character. The lower limbs suffer more frequently than the upper. Sometimes the neuritis is localized in a single nerve. Looking at the circumstances existing, it is not surprising that we should have a protean class of symptoms to deal with in diabetic neuritis. Some few cases had fallen under his observation in which anginal symptoms had existed in connection with the diabetes, probably arising from involvement of the pneumogastric nerve. A toxic factor operates in peripheral neuritis, and in books it is stated that a toxic agent stands as an operative factor in diabetic neuritis as well. In Ross and Bury's work on "Peripheral Neuritis" it is stated that certain facts seem to indicate that the neuritis is not due to an excess of sugar in the blood. His experience was diametrically opposed to this allegation acquitting the sugar. Neuritis does not occur where the sugar is kept down by treatment. Conjoined with the dietetic and codeina or opium treatment for the diabetes, he has obtained beneficial effects from the administration of 5 grs. of iodide of potassium and 10 grs. of bromide of ammonium thrice daily. If there is much superficial pain he applies cautiously linimentum aconiti.

On Black Urine.—Garrod (The Practitioner) gives a brief account of the importance which has been attached to this phenomenon from ancient times, citing cases in which the condition existed in healthy persons. He then gives a list of diseases which may produce black or dark urine. The first disease discussed is jaundice. It is not common for urines containing bile pigment to approach to blackness, but when there is a large amount of biliverdin, together with bilirubin and other varieties of bile pigment, they may appear black. Black urines of this kind are more common in cases of long-standing jaundice in which the skin has become a dirty greenish hue. The writer thinks that it is probable that many of the black urines described in the earlier literature owed their blackness to the admixture of blood or of hæmoglobin. The term "black water fever," the writer states, bears witness to the character of the urine which may result from the presence of hæmoglobin. In cases of poisoning by certain drugs the urine may appear opaque and practically black. In hæmatoporphyri-

nuria the color of the urine usually resembles that of port wine, but various degrees of tint are met with. True melanuria associated with melanotic sarcoma is a rare condition. In melanuria the urine has usually a normal color when passed, although it may have a brown tint, but after being exposed to air it quickly becomes brown, and finally as black as ink. In alkaptonuria as in melanuria the urine is of normal color when fresh but darkens on standing. In the condition of ochronosis—a term given to a blackening of the cartilages and of some other tissues—the urine has been observed in a few cases to blacken on standing.

Any morbid process which leads to abundant excretion of indican may give rise to dark urine—intestinal obstruction from any cause, excessive bacterial activity in the intestine, or putrefactive changes in collections of pus. Indicanuria is not nearly so well recognized as it should be. It has been noted in some cases of phthisis that urine became black on long keeping. The writer mentions several instances of uncertain nature in which the urine has been discolored. He also gives a list of articles of diet and drugs which have the same effect. As to prognosis, it may be grave, as in the case of true melanuria; or as in alkaptonuria the condition may be harmless. Between these extremes of morbid conditions are various degrees of gravity.

A Plea for High Standard in Therapeutics.—Dr. J. N. Upshur (The Virginia Medical Semi-Monthly, Feb. 7, 1908) in a paper read before the Medical Society of Virginia during its meeting at Chase City, November, 1907, enters a strong argument against the idea recently advanced to omit Therapeutics from the examinations before State Boards. He says the influence of such views is harmful to the last degree. It tends to lower the standard of orthodox medicine to the level of the most sordid commercialism, to abrogate and annul its dignity as a high and noble profession, and reduce it to the level of a common trade followed for what it will pay. It places it in a position where it no longer will stand for scientific truth, the skillful treatment of disease, the relief of suffering humanity for the noble motive—the relief of a brotherman's physical woes. It especially enunciates, under the mask of a seeming charity, a falsehood, far-reaching, and injurious to the profession and its high aims, as the "Father of Lies" himself can be. An analysis of what regular medicine claims through the administration of scientific therapeutics is based on a sound and thorough knowledge of drugs, in their physiological action and correct application, and other standard remedies; and the remedies and methods used by every school up to this time considered quackery, whether homeopath, eclectic, osteopath, Christian science or what not—would of necessity show what is truth upon which our fathers founded their faith, and in which we have been raised. We are asked to cut loose from our moorings and drift anywhere, upon an unknown sea; nothing is offered in exchange, except, perhaps, better pay. He believes these views have been born as the result of unpardonable ignorance on the part of many of the profession of Materia Medica and Therapeutics. Because of the inroads made by the manufacture and sale of proprietary preparations, the doctor lets the drummer do his thinking and prescribing for him; he fails to get results and loses faith, and becomes a fit subject to be blown about by any wind of doctrine.

Nor does the responsibility rest here alone. He also believes that in the effort for a more thorough course of instruction, a more elaborate curriculum, the medical schools have fallen into an error. The fundamental principles of medicines and surgery are taught covering all other subsidiary departments. Emphasis is placed on the history of disease, symptomatology pathology, diagnosis and prognosis; but means of cure, by the adaptation of suitable remedies, is slurred over or slighted and therapeutics is left to be taught the student, in the subdivision of the scheme, by that teacher who gives instruction in a general way from a general standpoint; and the poor student, in attempting to adapt it to some special affection, makes a misfit and, unless very fortunate, never gets it straightened out in the future. The therapeutics of the orthodox profession consists in the scientific application of drugs and other means of relief and cure, for good reasons, based upon the indications in the case, and knowledge of the physiological action of the drug exhibited in a definite and suitable dose. Such means of prevention and cure of disease as vaccination and antitoxin have in thousands of cases, established their claim as a boon to humanity by the prevention of smallpox and the cure of diphtheria. Yet, the Homeopath gives vaccine taken from the arm in a certain dilution by the mouth, and very many repudiate antitoxin as a remedy for diphtheria altogether. This may be done ignorantly, but he asks, is it safe?

Again it is a known fact that homeopathy in its therapeutics, treats symptoms; the "*similia similibus curantur*" is a cardinal principle of the dogma. Where comes in the skill here? That the greater strength depends on the greatest dilution, is a patent

fallacy, emphasizing criminal ignorance of the eliminative ability of the human body, as taught in the fundamental principles of physiology. Medicine must be given in a sufficient dose repeated frequently enough, and continued long enough, to produce its definite physiological action, or there cannot be, in the nature of things, relief or cure.

Osteopathy finds with all of its profound knowledge of fundamental branches—"anatomy, physiology and pathology, with all their subsidiary branches, including surgery and obsetrics"—a remedy for relief or cure of disease, only in massage in some form. Think of it, diphtheria trifled with by rubbing the throat, aiding more rapid absorption and resulting in more profound systemic infection; think of the danger of such manipulation in an appendicitis resulting in abscess from delay and rupture, and fatal septic peritonttis from too rough handling. The fallacy of massage of the chest in tuberculosis, or relief and comfort in organic disease of the heart—can an intelligent man claim this is safe?

What of the Faith Curists? God save the mark! It would be puerile for an intelligent physician to suggest that their therapeutic measures could be safe under any conditions. We are told that "practically we have no quarrel" with these. Quarrel, no; it begs the question thus to express it. But we have a great responsibility which we cannot shirk, which demands to prove that, "its death-rattle" not only cannot be almost heard, but that there is a strong and virile body of the regular profession imbued with love and loyalty to it, who actuated by right motives and impelled by a deep conviction of the right, intend to fight for all time the inroads of fraud, and the attempt to lower its standard into the dust and mire of sordidness and selfishness, and the risk of the wholesale sacrifice of human life. Who are not ready to call a halt to the progress of medical science as manifested by its advances in every direction at the present time? Our motto expresses our principles, "ever onward and upward to the light, ever in search of the truth, sustained by the principles of science, as illustrated by the benefit to humanity in the relief and cure of human suffering."

The course taught by some of these schools, it is asserted, is more thorough than that of the dogmatic schools in their branches. Is it? For argument sake, grant that this is so! But with the therapeutics eliminated, it is like the play of Hamlet, with Hamlet left out.

In conclusion, the writer pleads for high ideals in the standard of therapeutics. No department of medicine can be studied, which, by the acquirements of a thorough knowledge, will redound more fully in benefits to suffering humanity, broadening as it does the resources of the physician and enabling him to administer remedies too scientifically aver to grope and blunder. It will give greater confidence in his own powers for good, and so impress the sense of right that the base counterfeits are readily recognized and eliminated. So will the regular profession be redeemed from error, and firmly stand, established in truth and righteousness: The tendency of this age is to low standards. Never was there a time when the public mind was so familiar with vice and crime; never a time when conscience was less sensitive. Those who have borne the burden and heat of the day and had a wide experience, who have grown to love and reverence our great profession, must cry aloud, and cease not, against all methods which tend to lower the standard of truth and right. So may it be that the coming years may be even better than the former.

Hallucination.—McDonald (The Glasgow Medical Journal) speaks of hallucinations. He remarks that the student of history cannot help being struck by the part played by hallucinations in the story of human progress. In the annals of every nation, even from the remotest periods, we meet with hallucinatory episodes affecting the trend of popular thought and belief, and directing the conduct of the people. In some instances we find that the hallucinations pertain to a particular individual, who interprets the hallucination as a mysterious, divine revelation, an interpretation which begetting in its turn the secret belief in a divine mission, dominates the consciousness, leads to concentration of thought, a determination of purpose, and an accumulation of energy that urges on the hallucinated being to a realization of his dream, and sometimes makes him a leader of men. Thus, we find Joan of Arc in the history of France. But history also furnishes instances of hallucinations effecting masses of humanity. As example the author cites the hallucinatory epidemics that affected whole communities and armies during the holy wars, and here also one individual, Peter the Hermit of Amiens. Biographers relate hallucinatory episodes in the lives of many illustrious men of all times, some of them men of undoubted genius. Martin Luther, according to the evidence of his own writings, was andoubtedly subject to auditory hallucinations. So also was George Fox, the founder of the Society of Friends. Socrates, the ancient Grecian philosopher, is judged to have been

the victim of hallucinations. Descartes, after long confinement, was followed by an invisible person calling upon him to pursue the search of truth. It is recorded by Lombroso that Von Helmont declared he saw a guardian angel appear to him in all the most important events in his life. Napoleon was said to have had interviews with a familar spirit in the form of a little red man, and he asserted he saw his star in every great occurrence. Oliver Cromwell, while lying tired and sleepless in bed, had an apparition of the gigantic figure of a lady who told him he would be the greatest man in England. Johnson when at Oxford one day heard his mother distinctly call "Sam," though she was then at Lichfield. Cowper was one day found by his medical attendant with a penknife sticking in his side. He believed he had heard a voice from heaven commanding him to take his own life. Pope one day asked the doctor attending him what was the arm which seemed to come out of the wall. Byron occasionally fancied he was visited by a spectre, but regarded it as the effect of an overstimulated brain. Goethe stated that one day he saw the exact counterpart of himself coming towards him. These are but a few out of many instances in the lives of great men in whom the existence of hallucinations seems to have been well established by the evidence of the facts. Hallucination should be defended as a subjective perception, a perception without a corresponding objective stimulus. Hallucinations of hearing are those which we meet with most frequently among the insane. They vary in character from simple noises, rumblings, moanings, hissings, whistlings, tinklings, musical sounds, barks growls, cries, to the most complex of woods and sentences. Hallucinations of sights may assume the most diverse forms. The most elementary appear as mere blurs, clouds, sparks, flashes of light, while in the more complex, faces, persons, every variety of object and scene may be portrayed in detail. Sometimes they are very indefinite, colorless, and phantomlike; at other times they are very vivid, highly colored, and stand out in bold relief. Hallucinations of smell are not at all uncommon, and patients often complain that they smell poisonous gases, chloroform, iodoform, fæces, putrefying substances, dead bodies, seminal discharges, etc. Hallucinations of taste also occur, as when the patient tells us that he detects poison, blood, fæces, etc., in his food. Hallucinations of touch may be referred to any point in the body. They vary in character and intensity from creeping, pricking, cold, and burning sensations, to electric shocks, caresses, stabs, blows, bites, and injuries of all kinds. The author reviews the theories about hallucination. He believes that the theory of the peripheral origin of hallucination holds good in some, but not in all, instances. Even when the primary stimulus occurs without the cerebrum, hallucinations are produced only after the censory centres, which are the seat of images, have been stimulated. A hallucination is never an entirely new creation of the brain, but simply a reproduction of memory images, and, in cases where the hallucination seems new, strange, and enigmatical, we have to deal merely with a new combination of its component elements. So also in dreams, which are the hallucinations of the sleeping state. It is an interesting and remarkable fact that hallucinations vary in different races and at different periods of history according to the knowledge and the dominant ideas of the day and the people. The ancient Greek who had visual hallucinations saw gods and godesses, satyrs, driads, and nymphs. The hallucinated individual of the middle ages had visions of saints and guardian angels, or saw the devil, after the manner of that day, with horns, a goat's head, an arrow headed tail, and a pitchfork. In these later days visions of heaven or hell are more Miltonic in character, and with the wider diffusion of knowledge and the practical tendencies of advanceing civilization they are becoming less frequent and less definite than they used to be. So, too, in the case of auditory hallucinations. In earlier times the hallucinatory voices were interpreted as those of celestial beings or spirits. Then the introduction of speaking tubes afforded a new explanation, and the sufferer was convinced that a secret system of tubes existed in the walls of his apartments. The introduction of the telegraph and then of the telephone was followed by the transference of the voices to wires hidden in the walls, while in these days it is no uncommon thing to find the victim of auditory hallucinations who declares that he is constantly receiving marconigrams and wireless messages. The author concludes that no doubt a hallucination is an abnormal cerebral product, and if it were possible to divide mankind into two categories, those of sound mind and those of sound mind and those of unsound mind, we should have no option left but to include the hallucinated with the unsound. Such a division is, however, impossible. Sanity and insanity are comparative terms. Each individual has a normal peculiar to himself, and applicable to none other. Any attempt to make a division between sanity and insanity must be artificial and conventional in the highest degree. The existence

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of hallucination is certainly no criterion of insanity. We can, however, agree that when the subject of hallucinations fails to recognize these as anomalous productions productions of his brain, and allows his thoughts to be directed from their ordinary course, and his conduct to be regulated by the hallucinatory mental content, he is no longer of sound mind.

Birth Traumatism and Epilepsy.—Volland (Allgem. Ztschrft. j. Psych.) among 1500 artificial labors, was enabled to deterine the existence of epilepsy in 45 patients, of 3 per cent. of the cases. Besides abnormal labor, faulty heredity assisted in the production of the epilepsy in 13 cases. Tuberculosis of the immediate or remote progenitors was noted in six cases. Only three patients presented changes of the skull, which could be positively referred to traumatic influences at the time of birth. In seven cases, without psychopathic heredity, there was infantile cerebral palsy, usually appearing in the course of the first to second year, together with the epilepsy. The traumatic injuries at the time of birth apparently create a predisposition of the brain for the evolution of the encephalitic process. In proportion to the great frequency of epilepsy, however, birth traumatism plays only a minor part in the etiology of this disease. It is probably to be regarded as a preparatory cause of the subsequent epilepsy in a small number of cases.

The Treatment of Tetany with Parathyroid Preparations.—Loewenthal and Wiebrecht (Deutsche Zeitscrift f. Nervenheilkunde), based upon numerous experiments, arrive at the conclusions that many cases of tetany are favorably influenced by feeding with thyroid and parathyroid gland. This favorable effect is due to the amount of parathyroid substance in the administered glands. In contrrdistinction to healthy individuals, these patients present no diminution of the body weight, or signs of thyroidism, as a result of the medication. Congenital cases of latent tetany are based upon aphasia or functional weakness of the parathyroids, becoming manifestly tetanic as soon as the chemical equilibrium of the organism is disturbed by toxic or infectious interventions.

One of the patients observed and treated by the authors was a woman about 40 years of age, who had suffered from a goitre since childhood. When she was 28 years old, rigidity of the hands was first noted, followed by severe spasms at the age of 37. Two years later, tetanic seizures and a psychical alteration made their appearance, together with emaciation and a loss of strength. Removal of the right lobe of the thyroid gland was followed by improvement of the tachycardia and the general condition, but soon afterwards the tetanic disturbances increased, and were complicated by attacks of diarrhea. Administration of thyroidin and rodagen brought only temporary improvement. In addition to the symptoms of tetany, the patient presented certain signs of Graves' disease, such as tremor, hyperidrosis, diarrhea, struma. A rapid subsidence of the tetanic attacks was observed to follow the administration of fresh thyroid and parathyroid glands. When the daily dosage of the powdered gland had been raised to 0.75 g. each day, the patient became entirely free from attacks, which returned as soon as the dose was diminished to 0.3 g., disappearing again with the elevation of the dose. It was gradually demonstrated, through repeated experimentation with pure thyroid and parathyroid substance, that the therapeutic effect is exclusively due to the ingestion of parathyroid substance. The symptoms of Graves' disease, and the psychic disturbances, were not affected by the parathyroid medication, which modified the tetanic manifestations alone. The same method of treatment failed in another case of tetany.

The Pathogenesis of Hirschsprung's Disease.

Neter (Munchener medizinische Wochenschrift) says that in spite of the numerous modifications which the conception of this affection has undergone in the last few years, it may be defined as being a type of constipation appearing in earliest infancy, often during the first days of life, that is extremely obstinate, and is not rarely fatal. Anatomically there is always found a marked dilatation of the lower portion of the colon, particularly of the sigmoid flexure, and usually also an abnormal dilatation of this portion of the intestine. Hirschsprung assumed that the dilatation and hypertrophy of the sigmoid were congenital, but some observers had advocated the view that there is a congenital dilatation of the lower portion of the colon with aplasia of the musculature. Others have believed in an idiopathic dilatation of the colon or in deficient tonus of a normal muscular wall in consequence of inadequate innervation. The author is of the opinion that the fundamental condition leading to the development of Hirschsprung's disease consists in an abnormal length of the sigmoid and that the dilatation and hypertrophy are secondary and not congenital changes. A case in point is reported which the author regards as affording evidence in favor of his theory.

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Mucous Plaques; Prophylaxis and Treatment.

By Edward H. Skinner, M. D.
St. Louis, Mo.

The proper care of the mouth is a matter of importance in the control of the secondary symptoms of oral syphilis, especially in view of the fact that the average luetic patient has all too little regard for any hygienic measure. In anticipation of the early onset of the secondary oral patches it should be the duty of the physician to instruct his patients as to the proper prophylactic measures to be adopted that the severity of these symptoms may be ameliorated.

The first thorough examination of the new luetic case should include the careful inspection of the mouth and teeth. If we feel incompetent to judge of the condition of the teeth we should refer the patient to the dentist. The roughened edge of a tooth, or an unfilled cavity, may serve as an irritant in establishing a mucous patch. The dentist will instruct the patient as to the proper care of the teeth. The cleaning of the teeth after meals, to avoid the accumulation of debris, should be impressively taught. We should also realize that salivation may best be avoided by the attention to the teeth and gums.

Anticipating the secondary symptons we usually attempt to promote the general health of the individual by tonics and bodily hygiene. We should also try to increase the cellular resistance of the buccal membrane by local measures. It may be well to consider means to this end at this time. Bartholow considers a number of drugs to be used locally. Hydrastis canadens is recommended as a stimulant to mucous membranes. It also has a valuable astringent quality and promotes the salivary secretions. Hamamelis virginica is also valuable in advancing the prophylactic powers of the mucous membranes. Thymol and menthol have valuable properties, influencing fermentation and putrefaction, and also serving as antiseptic They allay the sensibility of the mucous membranes and arrest the retraction of the gums. Boric acid has decided antiseptic and deodorant properties. This acid was an important factor in the original Lister antiseptic method. Being very mild, it may be used in varying strengths without danger. Glycerine has a beneficail effect on all mucous membranes, inasmuch as it dehydrates and soothes any tissues it may touch Combination of the above remedies may be made that will serve not only as valuable prophylactics, but also as curative agents in any inflammation of the mucous membrane. But we should remember that the application will avail little if the patient does not assist their action by the careful cleansing of the mouth and teeth at frequent intervals, not being afraid to use the greatest remedy of ala—pure water.

When once the mucous patch has asserted itself we should try to avoid the ulacerting and sloughing process that accompanies the oral syphilide. It is at this time that our prophylactic measures show their true worth. The mucous patch rarely spreads in the clean mouth. Foul secretions and decomposing food stuff favor the ulceration of the patces, The best local application for a patch is the silver nitrate pencil. One application a day will usually suffice. An antiseptic mouth-wash should beused by the patient about every three hours during the day. Among the varous combinations on the market today one will find that Katharmon offer advsntages. The iniernal administration of mercury should be pushed. If we find that tne patches persists in spite of the above treatment we should try a short regime of the iodides. Very frequently the stubbornness of oral features of syphills may be due to the mercury treatment. It is in these cases that the withdrawl of the metal and the substitution of the iodide, with the use of remedies to cure the ptyalitte symptoms, will afford relief. The Medical Mirrow.

Miscellaneous.

The Treatment of Dysentery.

Sandwith (Lancet) considers this question under the headings of "bacillary" dysentery and "amebic dysentery." In the former type the bowel should be cleaned out with castor oil or magnesia. Rest in bed should follow, with warm clothing, perhaps a hot-water bottle, and certainly a pad of cotton wool on the abdomen surrounded by a flannel bandage. Physiological rest for the intestines, so far as possible, must be obtained by stopping all solid food and giving only small quantities of liquid every two or three hours. When the tongue is fairly clean, boiled or sterilized milk, pure or diluted with rice water, or peptonized, is the best food. The daily examination of stools, as in enteric fever, will tell you whether we are giving too much milk or whether it is necessary to peptonize it. When the tongue is thickly coated or the patient loathes milk, we may have to give chicken broth, albumin water, whey or rice water for a day or two. Alcohol will not help the dysentery and is bad for the liver, so should be withheld unless the heart requires it; brandy in such circumstances is the best stimulant. All food should be given tepid, neither hot nor cold, and even then a small judicious meal may cause immediate peristalsis and an action of the bowels. We must treat dysentery just as carefully as we would enteric fever if we wish to cure the patient. The author has hearty commendation for the serum treatment. In the amebic variety of the disease the same general regimen is followed as above outlined. We may give bismuth by the mouth, with tanniger or some astringent added Many still rely on ipecac in combination with opium. Calomel is not indicated. Sulphate of magnesia may be given alone or combined with sulphate of soda. Rectal irrigations are of great value and should be begun early. Quinine may be used, 1-500 or 1-1000. Silver nitrate, 1-1000, or copper sulphate in the same strength.

A Plea for Uniformity of Conditions in Vaccination.

Gerrard (Lancet) complains that the lymph used for vaccination is under no official control or supervision except in case of public vaccination. The private practitioner may obtain his vaccine from whereever he likes, he may carry out the procedure in whatever way he may wish, and he may scarify in as many or as few places as his convictions or his patients dictate. He may also, if he cares to, return the slightest reaction as successful vaccination He is under no supervision whatever. In such an

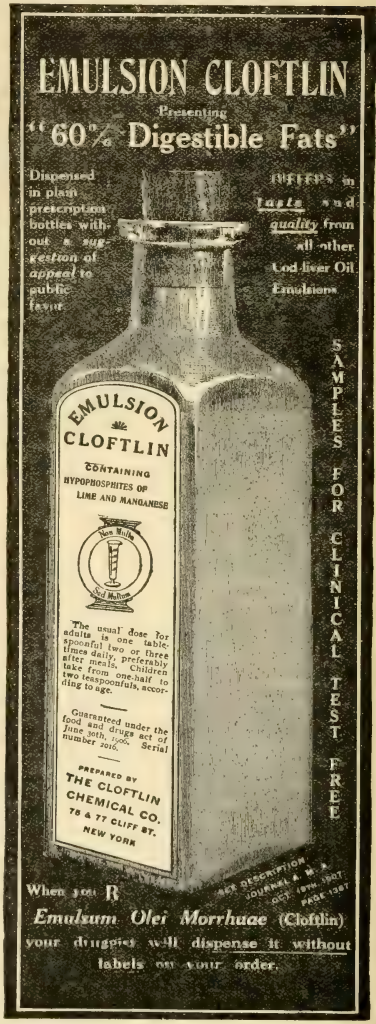
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TABLE OF CONTENTS FOR MARCH, 1908.

Original Communications.

Are Our Rights Threatened? by Dr. H. C. Buck, Friars Point, Mississippi, 121
Confusion and Errors in the Diagnosis of Rheumatism, by Lewis M. Gaines, M D, Atlanta, Ga. 142
Delirium Tremens, by Dr. Robt. S. Carroll, Asheville, N. C. 145
Ectopic Gestation, by John W. Dillard, M.D., Lynchburg, Virginia. 135
Malformations of the Mouth and Cleft Palate, by M. F. Coomes, M. D., Louisville, Kentucky. 123
Massive Quinine Dosage in the Treatment of Pneumonia, by R. L. Payne, Jr., M. D., Norfolk, Virginia, 129
Open Method Treatment of Epithelcoma on a Muco-Cutaneous Surface, by W. D. Witherbee, M. D., Charlotte, N. C. 122
Presidential Address, by Dr. Stuart McGuire, Richmond, Virginia. 136
Retained Placenta—Report of a Case, with Remarks, by J. N. Upshur, M. D., Richmond, Virginia. 138
Sarcoma of Colon, by Dr. C. M. Strong, Charlotte, N. C. 133
The Position of the X-Ray Specialist in the Field of Medicine and Surgery, by Dr. A. L. Gray, Richmond, Virginia. 128
The Treatment of Epilepsy, by J. Allison Hodges, M. D., Richmond, Virginia, 139
Tubal Pregnancy, by W. P. Whittington, M.D., Asheville, N. C. 126

Editorial.

An Osteopath Shot. 156
Amebic Dysentery. 155
Charlotte Sanatorium Training School for Nurses. 154
Dr. L. L. Ardrey 158
Five Children at a Birth. 157
How Will It Work? 157
Report of the North Carolina Board of Health. 156
Small-Pox. 158
The Fight Against Tuberculosis. 158
The Tri-State Medical Society Meeting. 151
Vivisection. 153
Watts Hospital, Durham, N. C. 156
Yellow Fever. 157

Review of Southern Medical Literature. 158

Book Notices.

A Great Opportunity for Sufferers from Nervous Troubles. 164
Diseases of the Heart, by Prof. Th. von Jurgensen, of Tubingen. 163
Eleventh Biennial Report of the North Carolina Board of Health, 1905-6, 164
Practical Fever Nursing, by Edward C. Register, M.D., Charlotte, N. C. 164
Surgery: Its Principles and Practice, edited by W. W. Keen, M. D. 163
The Pyonex: Its Theory and Practice, by W. B. Rule, M. R.C.S., L.R.C.P. London. 164

Abstracts.

A Plea for Higher Standard in Therapeutics. 168
Birth Traumatism and Epilepsy. 172
Diabetic Neuritis. 167
Hallucination. 169
Locomotor Ataxia. 165
Observations on Pirquet's Tuberculin Reaction. 150
On Black Fever. 167
The Heart Rhythm. 165
The Surgical Treatment of Cerebrospinal Meningitis 166
The Mechanism of the Reflexes. 166
The Treatment of Tetany with Parathyroid Preparations. 172
The Pathogenesis of Hirschsprung's Disease. 172
Vaginal Cyst. 149

Influence of Diet on the Liver.

Watson (Lancet) details the results of two series of observations. One experiment consisted in feeding a large number of rats on an exclusive ox-flesh diet, this being essentially a mixed diet of protein and fats. In this experiment it was observed that the percentage weight of the liver in meat-fed rats was, as a rule, considerably greater than in the control bread-and-milk fed subjects, the difference beiag such as could not readily be explained by mere variation in the blood-supply of the organ. An objection may be raised that the use of an exclusive flesh diet is too unnatural a regime to allow any deductions to be drawn which can be applied to conditions obtaining in man. To meet this objection attention is therefore more particularly directed to the detailed results of a second series of observations, which consisted in comparing the percentage weight of liver tissue in wild rats living, it is assumed, on a highly nitrogenous dietary with those of an equal series of animals obtained chiefly from the same source which were fed on a diet of bread and milk in fixed proportions, a diet which contained a much smaller proportion of nitrogenous food. This diet of bread and milk is one which has been proved to be well adapted for the growth, general health, and fertility of the ordinary tame rat.

Prevention of Scarlatinal Nephritis.

Thompson speaking in regard to the use of a prophylactic drug against the nephritis of scarlatina says that urotropin is the only one which has proved itself of value. Of 47 consecutive patients treated with this agent by the writer, not one had nephritis and only one exhibited albuminuria. These facts are considered encouraging enough by the author to suggest the further use of the drug in scarlatina. Patients treated with hexamethylenetetramine were less fortunate in escaping nephritis, and the writer holds this drug to be not an exact equivalent of urotropin when considered from the point of therapeutic results. It is suggested that all instances of scarlatina be treated from the beginning with 5-grain doses of urotropin three times a day for children up to twelve years; for patients above this age 7½ grains thrice daily are advised. Generous dilution of the drug with water is necessary and the treatment should be continued to the end of the twenty-eighth day of the disease.—Edinburgh Medical Journal.

important matter as vaccination, where the benefit to the patient is not immediately apparent, it is very serious if the operation is carried out by any means not ideal from a surgical point of view. All these objections could be met, he claims, by having vaccination completely under State control. He believes that the cases handled by the public vaccinators are better protected against variola than are those of the average private physician. Comparison of official and non-official lymph with regard to bacterial content were much in favor of the formes, as shown by tabulated results. It must be remembered that the author is speaking of conditions in England. In the United States the lymph manufactured by the civic authorities can be purchased by local physicians even for private patients if the latter are too poor to pay, and the charge has been made so low that it can almost be disregaeded.

Alimentary Levulosuria in Diptheria.—Francelt (Rev. di Clin. Ped.) cays that one o fthe lastest methods of indicating the perfection of function of the liver is alimentary levulosuria. The author has made observations of this method in forty-one cases, thirty-three of diptheria and seven of angina. Of these, thirty gave postive results when levulose was administered by mouth and tests were made. The author concludes that the test for levulosuria in diptheria, both in the height of the disease and in convalescence is in most positive. It is always positive in cases of diptheritic paralysis. It is not influenced by slight nepthritis, bronchopneumonia, fever, or general symptoms.

Pathogenesis of Nervous Complications in Pertussis.—Durante (La Pediatria) tells us that the various complications of nervous origin in pertussis are not rare. They consist of paralysis, peripheral, contral, spiral, and bulbar, neuritis, and special sense troubles. The predisposing causes are debility, loss of sleep, loss of nourishment from vomiting, and the specific infections element of the disease acting on the system of the child. The immediate causes are the violent cough, which increases the blood pressure at the time of the paroxysm, changes in the circulation, and hemorrhages into the brain and nervous centers. These lesions are sudden in onset, short in duration, and generally entirely recovered from. The commonest symptom is convulsions, which may be slight or severe enough to cause death. The frequent recovery indicates that there is no permanent organic leision. Another explanation that has been given o fthe occurrence of these symptoms is the chronic carbonic acid poisoning which result sfrom partial asphyxiation.

Epilepsy in Chaildhood.—Keeling (Brit. Jour. Child. Dis.) saps that the pathology of epilepsy appears to resemble in some respects that of cerebral diplegia, chorea, paralysis agitans, neurasthenia, myoclonus and migraine.

Etiologically, rickets is an important factor in the causation of epilepsy.

A variety of epilepsy, which may be termed toxic epilepsy, is chiefly gastro-intestinal in origin.

Reflex epilepsy is apparnetly rare; peripheral irritation probably plays a very small part in the production of the fits.

The effect of measles on epilepsy is uncertain.

Chorea is very rarely found associated with epilepsy.

Infantile paralyses, especialiy the congenital forms, are closely related to epilepsy.

An injury or a fright is frequently the exciting cause of a fit. Instrumental delivery may be followed b yparesis with subsequent epilepsy.

Enuresis is an occasional sequela of epilepsy.

The three affections most frequently found in the family history of epileptics are epilepsy, migraine and alcoholism.

Migraine appear sto be very closely allied to epilepsy, both in the family history and symptomatically.

The differential diagonsis between Meniere's disease and epilepsy is occasionaily difficult.

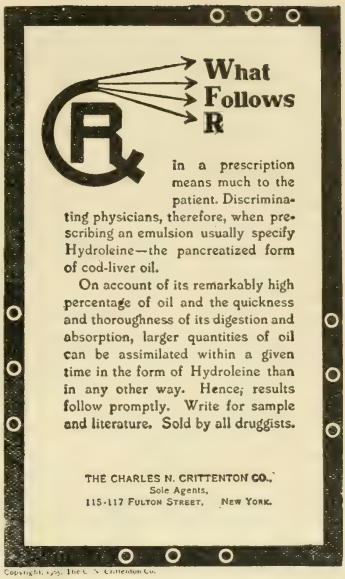
Goiter in the New-born.—Plauchu and Richard (Gaz. des Hop.) find that goiter is not exceedinly rare in infants. Its size may vary from that of a small mut to that of the thumb. It extends across the neck, or is shaped like two pyramids with the apices upward and backward. It may be vascular, which is the commonest form, parenchymatous, or cystic. The vascular tumors are absorbed soon after birth. They are composed chiefly of dilated veins. Large sinuses are found in the glands and few islands of cells. The parenchymatous form is rare, and only one case is reported after autopsy. The trachea ay be so much compressed as to produce cyanosis. The esophagus muy also be

compressed. In general the tumor is hereditary, and congenital. Goiter in the fetus is sometimes a cause of dystocia. The symptoms aside from the presence o fthe tumor are dyspnea, cyanosis, difficult in swallowing, cough, and refusal to nurse. This affection in the new-born child is exceedinly grave. Death results in the majority of cases, depending on tracheal stenosis. The goiter may be gradually absorbed. It may be necessary to invert the infant to relieve the attack of cyanosis, and tracheotomy may become necessary. Thyroidectomy is too severe an operation to be performed in such young children. Exothyropexy is to be preferred and has good results.

Phagocytic Power of the Blood in Infants. Finizio (La Pediatria) tested the phagocytic power o fthe blood in an infant attacked by empyema due to the staphylococcus pyogenes aureus, and in one suffering only from slight dyspepsia. He used staphylococcic pus from another source fo rcomparison pus from another source for comparison tests. The index in the baby with empyema was always higher than in that of the other baby. It was higher in both babies for the empyema pus than for the other sample. It was always within the limits observed by Wright. The author concludes that the index is lower for the more virulent staphylococcue, which is less subject to the phagocytic power than those of weaker virulence. The phago-cytic index is always higher in the healthy child.

Bier's Stasis Method in Osteomyelitis and Tubercular Osteoarthritis.—Costa (Gior. Internat. delle Sei. Med.) has used the passive hyperemia method of Bier, produced by elastic band around the limb above the joint, and applied from one-half hour to three or five housr in cases of osteomyelitis and tubercular osteoarthritis. In cases of much disorganization, with many sinuses, and much necrosis, it is a positive disadvantage, and destroys tissues that might be useful in an operation for excision of the joint. In closed lesions not communicating with the external air the method is of value, and some excellent results have been obtained. Nsed after operation the method is of value, especialy after a bloody operation.

Status Lymphaticus with Enlarged Thymus—Friedlander (Arch. of Ped.) reports such a case successfully treated b ythe x-ray at to monts of age. Twelpe exposures were employed, the first three for one, three and four minutes, the rest for five. The thmus and bronchial lymph nodes diminished greatly in size.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The subsequent development of the child was normal, and the external lymph nodes and spleen are no longer enlarged.

Again, the fact that the child could successfully withand such a trauma as the removal of the tonsile and adenoids without shock would speak for a resitance fully up to the normal within two years after the x-ray treatment.

Ovarian Cyst in Infant.—MacGillivray (Lancet) records the successful removal of a multilocular ovarion cyst, the points of interest being:

1. The age of the patient at the time of operation, eleven months, the tumor having been first noticed at the third month. D'Arcy Power's case is therefore the only younger case recorded, his patient being four months old at the time of operation; but in his case the cyst was unilocular, with a long pediele, incision. 2. The enormous size of the tumor mass it as in reality made up of two multilocular cysts with flattened sides, attached the one to the other by loose connective tissue, thus raising the question of its being a double

ovarian cyst; the state of the child at the time of the operation prevented investigations being made as to the presence or state of the other ovary. 3. The retroperitoneal position of the tumor, as shown by the appendix, cecum, and ascending colon lying in front of it and stretched over its surface, and the fact that the posterior layer of the peritoneum had to be torn through in order to enucleate the tumor As Kelly states, such a position points to the tumor being sarcomatous and irectly contraindicates an ovarian origin. 4. The uneventful recovery of so young a child from such a severe operation.

Cerebral Hyperemia as a Factor in Therapeutic Action of Lumbar Puncture.—Eve (Lancet) during the past few years has always measured the intracranial tension during a lumbar puncture, and has been led to the provisional conclusion that relief of tension should be given therapeutic credit only in cases where the hypertension is considerable; and that where the pressure is normal or slightly raised the benefit which sometimes results from lumbar puncture should be ascribed to other causes. He advocates the predominant claims of one factor which has not received attention. That factor is the marked passive hyperemia of the cerebrospinal vessels which must inevitably result from the removal of any considerable quantity of cerebrospinal fluid. For, owing to the uncollapsible bony envelope of the central nervous system and to the inextensibility of its nervous and liquid contents, it follows that for every ounce of cerebrospinal fluid removed an exactly equal quantity of blood will be added to the contents of the cerebrospinal vessels.

He reports an illustrative case of tetany treated by lumbar puncture, a healthy boy four years old. The onset was acute a fortnight before admission.

Treatment for twelve days consisted of tonics with open all day and night. Then five days of laperients and vermifuges in response to a history of worms eight weeks previously. Next, eleven days of energetic sedative treatment with chloral and bromide. The case had now a duration of six weeks with a month of hospital treatment without the slightest improvement. The writer stopped all other treatment and tried the withdrawal of an ounce of cerebrospinal fluid by lumbar puncture under chloroform. The pressure was normal (200 millimeters of water). Next day the child was more rigid, but from that time onwards improvement was rapid and complete.

The case convinced him as strongly as any single therapeutic observation could, that the withdrawal of an ounce of cerebrospinal fluid was responsible for the cure of this child. And since the pressure was normal, it seemed legitimateto conclude that it was hyperemia which had favorably affected the nutrition of the disordered nervous tissues in somewhat the same favorable manner as it has been shown by Bier and others to act in more accessible regions of the body.

Diabetes in Children.—Fletcher (Practitioner) finds from the records of St. Bartholomew's Hospital for twenty-two years that twenty-nine or 5.2 per cent of the diabetic patients were sixteen years of age or less, seventeen being males and twelve females. Heredity must be regarded as an important etiological factor. The Hebrew children do not seem to show as great a liability to the disease as do adults. In the majority of children no exciting or predisposing cause can be found. Skin affections are not very common in diabetic children. Vomiting is an important feature, constipation is common. Temperature is often subnormal, especially in severe cases with attacks of drowniness. The course of the disease is conspicuously shorter than in the adult. In many cases the final symptoms occur without warning, often after some slight cause such as constipation, diarrhea, toothache, a boil or abscesses. Convulsions are rare. The treatment differs in no essential from that of adults. The chief distinction between the treatment of a diabetic child and of a diabetic adult, on which special emphasis should be laid, is that in the case of the child, a strictly carbohydrate-free diet can rarely, if ever, be adopted without bringing about an increase in the acetone and acet-acetic acid reaction, and a greater liability to coma.

Noctambulism and Automatism in the Child.—Dauchez (Arch. de Med. des Enf.) describes somnambulism as it occurs in the child as a reflex of cerebral or medullary origin, an association of ideas that are habitual, in which judgment does not intervene. Noctambulism of dream in action is frequent in the child, while diurnal automatism is peculiar to the adult. It is observed in children of parents that are alcoholic, epileptic or degenerate. Ambulatory automatism in which the subpect escapes from himself is a symptom of adult

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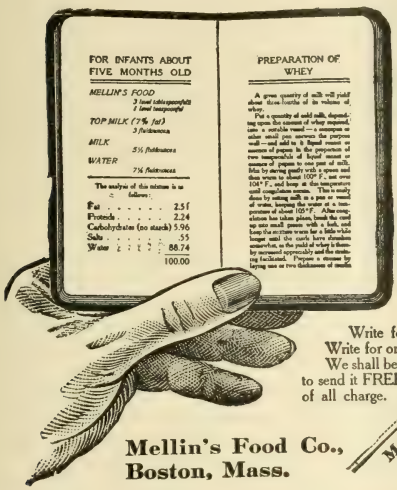
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life almost exclusively. Noctambulism in children is of all degrees from simple gestures to rising and walking about. A reflex is not a malady especially when there is no hereditary diathesis and the prognosis is good in these cases. Noctambulism appears in adolescence not in infancy In this cerebral reflex there is a dissociation of the psychical centers the senses alone remaining awake and the higher brain functions such as judgment remaining asleep Diurnal automatism, or ambulatory automatism is a state in which the patient escapes from himself, goes out, and remains away for some days, acting in the person of another self. This condition does not exist in children. The child of epileptic, or hysterical parents enters on daylight somnambulism and remains unconscious of himself. This form is intermediate between noctambulism and ambulatory automatism. Ambulatory automatism may exist in the adolescent and is of worse prognosis. With a hereditary taint automatism may become diurnal and perist through life.

Temperature of Infants.—Nobecourt (Rev. Mens. des Mal de l'Enf.) finds that the normal temperature of the infant does not vary in different parts of the day. In adults there is a slight rise as the day advances, but in the child he finds that this rise does not occur until the child has begun to be active. He believes that this change in temperature has to do with the bodily activity in those that exercise. In disease the infant has the customary afternoon rise, as in gastroenteritis. In the infant the same temperature is maintained day and night. Feeding has no effect on the temperature. The disappearance of monothermia indicates a pathological condition.

Mastoiditis in Infants—Nove-Josserand and Jacod (Arch. Gen. de Chir.) say that up to the age of two years ethmastoid process and cells should be considered as a part of the tympanic cavity. The meatus is large, short, and rectilinear and oblique from above backward, the Eustachian tube is large, short, streighter and more open than in the adult. The recumbent position of the infant allows of drainage from the pharynx into it, and thence into the ear. This infection of the mastoid occurs easily. The infection is generally unpreceived. It may result from adenoids, otitis, and naso-pharyngeal catarrh. The microbic cause is unimportant, but the general health is important, since some con-

ditions such as tubersulosis, infectious diseases of childhood, and gastroenteritis predispose to mastoiditis. Age has no great influence. The dimensions of the mastoid cell, which is often single, are about the same as in the adult. The condition found in mastoiditis is a pus pocket at the bottom of which is denuded bone. There are three forms: mastoiditis at the point of the process, mastoiditis involving the entire process, and mastoiditis that is diffuse and involves only the surface. Symptom sare slight; they are the appearance of a retro-auricular collection of pus, with little pain, and slight fever. As for complications, sinus involvement is not important, facial paralysis is rare, and meningitis occurs occasionally. The prognosis is good except in tuberculous subjects. Treatment consist of evacuatio nof the pus, scraping away the diseased bone and drainage.

Koch's Old Tuberculin in Gynecological Diagnosis.—Pankow (Zent. f. Gyn) sums up a series o fthirty-two cases of tuberculosis of the abdominal organs in which the diagnosis was assisted by the injection of the old form of tuberculin made by Koch. In all these cases the operation acted as control on the diagnosis. When there was a local reaction from the injection it was shown by pain in the abdomen and profuse diarrhea. A general reaction was shown by fever, chills, nausea, vomiting, etc. Only patients having no fever were injected. The thirty-two patients may be divided into four classes: 1. Those in which neither reaction nor histological diagnosis showed tuberculosis. 2. Those in which the diagnonsis was not established by the injection. 3. Those in which reaction and histological diagnosis agreed. 4. Those in which with a negative reaction diagnosis, histological examination showed tuberculosis to be present. The histories o fall these cases are given. Of thirty-two cases in which tuberculosis was astablished by examination the result of the tuberculin injection was positive in twenty-four, that is 75 per cent. It was negative in nine, 25 per cent. The local action was absent in twenty of the cases that showed general reaction. The author states that according to his observations if both local and general reaction are absent in all probability tuberculosis is absent from genitals and kidneys. Local reaction seems to be of little value in the diagnosis of abdominal tuberculosis.

The Correct Method of Interruption of Pregnancy.—Hannes (Munch. Med. Woch.) discuesses the best method of interrupting pregnancy when the needs of the mother require that it shall be terminated. He believes that the best ethod is one that shall produce pains of a normal character and an expulsion of the ovum by the natural means. The ganglia that control the uterine pains are on both sides of and behind the cervix, slightly below it. It is by insults offered to these ganglia by the pressure of the child that the ournal pains are produced. The means of interrupting labor should operate in the same manner. The apparatus should press on these same ganglia. Such an apparatus is to be found in the cigarshiped rubber bag or the balloon dilator. ags of different sizes can be used and the pressure varied by differences in the fullness of the inflated bags. The result is the excitation of rhythmical contractions, and a physiological labor. A living and viable child may thus be delivered. This method is infinitely preferable to rupture of the membranes allowing of the drainage off of the liquor amnii, thus doing away with the natural dilating force of the bag of waters. This when it happens before labor is begun in any case produces a very slow and tedious, not to say dangerous labor. The whole labor is completed with the baloons in less than twenty-two hours at the longest, while rupture of the membranes delays it from seventy to eighty hours. This method has been used for twelve years at the Frauenklinik in Breslau, and there has never been a bad result. The method may be thoroughly aseptic when properly conducted. The ending of labor is normal and spontaneous. The method is absolutely free from danger, and is applicable at any time during pregnancy, although it is not advisable to use it during the first two months. When a more rapid procedure is desirable to save the life of the mother the author makes use of vaginal Cesarean section. He considers this preferable to the use of cervical incisions or of Bossi's dilator. The latter is likely to leave tears that will not heal easily, while the vaginal Cesarean section leaves clean-cut wounds that can be perfectly sutured. The vaginal section is not desirable when there is placento praevia, since too free hemorrhage is likely to supervene.

Induced Labor and the Quickest Method of Producing it with the Mechanism of Dilatation—Bissi (Gyn. Rund.) tells us that he has

not changed his views as to the best method of artificial dilatation in the seventeen years since he first described his dilator, but that he has several times modified the dilator as a result of experience in its use. The dilatation may be accomplished in from one-half to two hours. He believes that the longer time is preferable. If danger presses, the operator any hurry the dilation. As soon as the instrument is introduced it acts as a foreign body and causes energetic contractions. The dilator has a dynamic as well as a mechanical effect. Diliation by the hand is not only difficult for the operator, but in some cases absolutely impossible, while it takes too much time, in some cases thus endangering the life of the patient. The mechanical power of the dilator lies in the crucifix form of the branches. Many dilators have been proposed which are faulty in their construction, and the bad results of their application have brought the method into disrepute. The instrument should never be introduced through a speculum nor should the uterus be held with forceps. It should alwyas be introduced along the hand and never blindly. Twoard the end of pregnancy at least an hour should be consumed in dilatation and the position of the blades should be changed two or three times to avoid tearing the cervix. The ends of the blades should be more blunt and longer than they ewre at first made. The dilator may be used with submucous fibroids in the uterine canal to permit the removal of the growth. The author believes that the method stands today as a good one, and that the failures of bad and improperly applied instruments should not be allowed to militate against its use with proper instruments applied in a proper manner. The indication is to improve the instrument and to teach the accoucheur its proper use.

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Acute Generalizing Peritonitis.—Carwardine, British Medical Journal, uses the term "generalizing peritonitis" to cover all those cases of rapidly spreading peritoneal infection, usually from a primary focus. The common sites of origin of such spreading peritonitis are the vermiform appendix, the uterine appendages, and the gastroduodenal region by reason of infection or perforation. Within the peritoneal cavity there are certain potential spaces which may become converted into pools by accumulation of fluid therein. Which of these spaces is primarily involved depends upon the site of origin, the effect of gravity, and the guiding direction of the viscera and omentum, both static and peristaltic. The accumulation of the infective fluid occupies the true pelvis; the omentum becomes fixed to the diseased focus, and tends to localize the fluid by forming an omental roof. The writer commends the practice of draining serous collections as well as the purulent ones, and if there be any apprehension of subsequent infection of any proximate favorite site, to anticipate this by putting a drainage tube into that area, the favorite pools being pelvic, right and left lumbar, and right and left subphernic. Two recent improvements in the treatment of these cases deserve notice. The Fowler position consists in placing the patient in the upright sitting position as soon as possible at the time of or immediately after operation, so that the peritoneal exudation may gravitate to the lower abdomen, where drainage is provided for, far away from the more dangerous epigastric areas. Murphy's treatment consists of (1) rapid removal of the focus of infection, with little disturbance of the peritoneum, and closure of the hole in the gut; (2) drainage (a) suprapubic, (b) through the

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operation incision; (3) rapid operation, preferably through the rectum, and no sutures are put in; (4) no food is given by the mouth for two or three days; and (5) continuous saline infusions by the rectum. The object of these last is not to cause the bowels to act, but merely to keep a supply of a few inches of saline fluid always in the rectum.

Signs of Death.

The following have been suggested as methods of deciding whether death has occurred:

a. Tie a string firmly about the finger. If the end of the finger becomes swollen and red, life is not extinct.

b. Insert a bright steel needle into the flesh. If it tarnishes by oxidation in the course of half an hour, life may be considered not extinct.

c. Inject a few drops of liquor ammonia under the skin. During life a deep red or purple spot is formed.

d. Moisten the eye with atropine. During life the pupil will dilate.

e. Look at a bright light or at the sun through the fingers held closely side by side. During life the color is pink; after death a dead white.

f. After death a dark spot is said to form gradually on the outer side of the white of the eye from drying of the sclerotic, so that the dark choroid shows through.

g. Putrefaction is an absolute sign of death. Better delay for it than run any risk of burying alive.—Selected.

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Heart Block.*

By L. B. Newell, M.D., Professor Pathology North Carolina Medical College, Charlotte, N. C.

In view of the considerable and very real interest which has been manifested by the scientific world during the past few years in the domain of heart pathology, any account of the work done by investigators along this line and the results of their researches can scarcely be otherwise than worth while to the practitioner. It has therefore seemed not inappropriate that I should attempt to gather into some sort of order a few remarks on one phase of this subject, hoping that it may stimulate a somewhat closer observation on the part of those of us who daily come in contact with the clinical manifestations of disease. With the text-book descriptions of cardiac arrythmias we are more or less familiar, but there are things which have not yet been incorporated into text-books generally, but which nevertheless have received the stamp of authoritative approval which means that they will eventually become common knowledge.

The causes of irregularities of cardiac rhythm and their pathologic significance are but imperfectly understood as yet, although wonderful advances have recently been made toward their explanation. If, therefore, I may bring to your attention some of the later ideas which have a genuine foundation in anatomic findings, it may not be entirely profitless. The condition to which these lines are devoted, while not exceedingly common, is yet not so rare and it may be possible that cases hitherto inexplicable could assume renewed clinical interest in the light of better understanding.

Heart block is comparatively a new word in medical terminology, but the condition to which it is applied is certainly not a clinical curiosity; rather is it a fairly well defined entity. Before defining the term, which is perhaps already more or less familiar to those present, it may be profitable to inquire into the normal mode of action of the heart. In an organ acting with such precision there should be found precise laws governing and explaining the phenomena of its action. As yet it is not possible to explain all these phenomena, although some things are known and formulated very definitely concerning the heart's action. But beyond these many facts are known, the explanation of which are matters of dispute; and still others which merely give ground for theorizing.

The study of the physiology of the heart beat has led to the formulation of two distinct theories as to the rhythmical contraction of the heart muscle. We know that it possesses an inherent tendency to rhythmical contraction, this being one of the properties by which it is physiologically differentiated from other kinds of muscle tissue. Avoiding any attempt to explain this phenomenon, we may add another fact; the contraction of the heart muscle begins, or is originated, in the mouths of the great veins (venae cavae) of the auricle, this resulting in the simultaneous contraction of the auricles, immediately followed by a simultaneous contraction of the ventricles; then there is a pause during which the heart is at rest. Clinically the normal rhythm consists in a long sound, a short pause, a short sound and a long pause. It matters not how or why the contraction originates, what concerns us most is the method by which the impulse, once it has arisen, travels over the auricles and from them to the ventricles. On this point two theories have arisen: the *neurogenic* and the *myogenic*.

According to the *neurogenic theory* the impulse originates in and travels by way of nerve cells. The stimulus generated in the venous end of the heart is transmitted through nerve axones first to the musculature of the auricles and subsequently to that of the ventricles (Howell). It is beyond the province of a paper of this kind to attempt to controvert this theory which still has its able advocates. It may be said, however, that it is possible to explain the various phenomena of the heart beat according to the *myogenic theory*, which holds that the impulse to contraction is transmitted from muscle cell to muscle cell without the intervention of nerve cells. While it is admitted that there are nerves in the heart, they are supposed to be connected with the extrinsic nerves through which the rate and force of the heart beat are regulated. For although the heart muscle itself possesses the property of automatic rhythmicity, it is still controlled by the extrinsic nervous mechanism. But since the contraction rhythm originates in the auricles they are so-to-speak the pace-maker (Howell) for the ventricles. And while it is true, as regards the whole-heart, that the ventricles derive their rhythm and rate from the auri-

*Read before Mecklenburg County Medical Society, January 21, 1908.

cular beat it is not to be supposed that the impulse from the venous end of the heart is essential to produce rhythmical contraction of the ventricles. It has been demonstrated that the ventricles possess an inherent rhythm of their own and likewise the auricles. In the case of the mammalian heart it is possible to isolate the ventricles experimentally from all connection with the auricles and even under these conditions with proper stimuli to set up rhythmical ventricular beats.

With the above imperfect recital of facts the question but naturally presents itself as to the nature, character and anatomic location of the connection between the auricles and ventricles. It is only within recent years that this has been discovered and the nature of this connection has been the point of contention between the advocates of the nerve conduction and of the muscle conduction theories respectively. Since His, Jr., in 1893, discovered a small band of muscle fibres connecting the auricular musculature with that of the ventricles, the myogenic theory of the heart beat has steadily gained adherents until today the majority of physiologists believe it to be the sole connection. Other investigators also have demonstrated this bundle of fibres which has been called the "auriculo-ventricular bundle," or the "bundle of His." This bundle runs from the middle leaflet of the tricuspid valve, just below the foramen ovale on the right side of the inter-auricular septum, passes downward and forward through the fibrous ring between the auricles and ventricles to blend with the musculature of the ventricles and terminate at the root of the aortic valve.

It may be said also that nerve connection between these portions of the heart is not lacking, but the fact that the delay of the wave of contraction at the auriculo-ventricular junction is too long to conform with the theory of nerve conduction, while it does correspond with the time necessary for the impulse to pass through the narrow muscular band, is much in favor of the myogenic theory. This fact in connection with experimental evidence and clinical observation is sufficient ground for acceptance of the latter view. After absolutely all nerve connection between auricles and ventricles has been severed experimentally, provided the band of His be left intact, the normal sequence of auriculo-ventricular rhythm goes on uninterruptedly. We have thus proof that the path of conduction lies in this muscular band and this is further borne out by the fact that destruction of this path or compression of this band absolutely stops the auriculo-ventricular sequence. Furthermore, by experimental compression of the bundle of His the sequence is interferred with according to the degree of pressure. And aside from this evidence, anatomic lesions of this band are found in cases presenting the clinical signs which shall presently be enumerated.

Heart Block is then "an interference with, or total obstruction of, the impulse which, coming from the auricles, normally causes the ventricles to beat in regular sequence to the auricular contraction" (Fahlen). In other words, if the bundle of His is not intact the impulse cannot pass from the auricles to the ventricles, and the normal co-ordination is lost. Interference with the impulse may be partial or total: accordingly there results partial or complete heart block. Erlanger and Figerstedt experimenting on the mammalian heart have, by suitably devised clamps, produced pressure on the bundle of His and they were able, by varying the degree of compression, to produce incomplete or complete block at will. Beginning with the lightest pressure and gradually increasing it the various stages of block are observed, the first effect being an increase in the length of the auriculo-ventricular pause. As the pressure increases one ventricular beat is lost in every 10, 9, 8, 6, 5, &c., always depending on the degree of compression. Thus the various stages of partial block occur until finally, when the pressure is sufficient, there is absolute blocking of the impulse and a state of complete block is observed. But it has already been said that the ventricles possess their own independent rhythmicity, so that when they no longer receive their pace-making impulse from the auricles, they begin their own rhythmical beat, which, however, is not co-ordinated with the auricular beat. Usually if the third or fourth auricular systole fail to stimulate the ventricle, the latter contracts spontaneously. And thus arises one form of arrythmia to which the name "relative complete block" (Erlanger) has been applied. There is no disturbance of auricular rhythm; this goes on unaltered and the rate may be normal or above, while the ventricular beat may vary from 10 to 40 per minute.

Enough has been said to make clear what is meant by the term heart block. It only remains, therefore, to describe some of the clinical manifestations which commonly accompany this condition. As long ago as 1826 Adams, of Dublin, noted a case in which the jugular pulsations were greater in number than the radial. In 1846, Stokes, another Dublin physician, described this phenomenon more fully, and so today we speak of the Stokes-Adams Syndrome or, more properly, the Adams-Stokes Syndrome, which is characterized clinically by (1) bradycardia, or slow arterial pulse; (2) venous pulsa-

tions in the cervical veins greater in number than the arterial; and (3) epileptiform—resembling *petit mal* or *grand mal*, apoplectiform, or syncopal attacks.

The disease occurs chiefly in males after the age of 30. A history of syphilis is obtained in some cases; in others the history is doubtful; in some negative. Symptoms usually come on at rather advanced age, although there are exceptional instances reported of its occurrence in the young. It is surprising, in reading reports of cases of this disease, how constantly, even among the diversified pathological findings, some lesion is found in, or near the region of, the band of His. Even in the earlier cases this is true, and since it has been more definitely localized disease of this bundle of fibres is practically constantly demonstrable at autopsy. While it is not practicable to review these reports, many cases are cited by various observers in which sclerotic and atheromatous changes of the septum, sarcomata, gummata, septicæmia, metastases and necrosis have been found either involving the band or producing pressure upon it. "All the chief symptoms of Adams-Stokes disease may be duplicated by heart block resulting from a lesion in or near the bundle of His or by this alone. No typical case of this disease has been described in which heart block might not have been the trouble, and it can be shown that the cases of Adams-Stokes disease which have been studied with sufficiently accurate means were cases of heart block" (Erlanger). However, after all has been said, the etiology and pathology of this condition is not yet fully worked out and much remains to be done before heart block is understood in all its phases.

As mentioned above, the essential symptoms are slow arterial pulse, and recurrent cerebral attacks. Secondary symptoms are digestive and respiratory disturbances and ocular alterations. Of the major signs bradycardia is most distinctive. The pulse rate is persistently low, varying from 40 to 10 beats per minute; the arteries are stiff and the pulse full. Associated with this slow arterial pulse is a venous beat of normal or very greatly increased rate. In one case a jugular pulsation of 140 per minute is reported, while at the same time the radial pulse varied from 10 to 30 per minute. Both puscultation of the praecordium and a comparison of the jugular and radial or brachial pulsations enable one to appreciate the difference in auricular and ventricular rates. On auscultation at the apex the slow not irregular ventricular sound is heard which is synchronous with the radial pulse; at the base is heard the faint sound of the auricular contractions synchronous with the pulsations of the cervical veins.

The cerebral attacks commonly take the form of *petit mal*. However, they may be syncopal or apoplectiform. Usually they last from a few seconds to several minutes, being repeated from a few to many times in 24 hours. Unless a close study of the cardiac action be made, the diagnosis of *petit mal* is usually made; only exceptionally are the seizures convulsive. Perhaps indeed in most cases the suggestion of *petit mal* is inevitable, since there is frequently a definite aura, often of the epigastric type. The face becomes pale and consciousness is lost momentarily, during which state the patient sometimes falls; at other times he recovers before equilibrium is lost. The pulse, during these seizures, may or may not be perceptible at the wrist. The cause of the attacks may be sought in the anemia of the brain which results from failure of the heart to supply a sufficient amount of blood.

With this bare outline of facts it is necessary to omit much that is interesting. It is impossible to touch upon many aspects of the subject, especially the relation of the extrinsic nervous system to heart block, and the influence of certain drugs upon it. It is said that digitalis and strychnine have the effect of producing block in hearts predisposed to it.

No claim to originality is made in the facts herewith presented. My purpose was to bring the subject before the society because of its interest to myself and I do so with the hope that those of us who have opportunity will observe more closely the significance of the various cardiac symptoms with which we are confronted in the routine of medical practice. The effect of drawing attention to the subject and of arousing interest in it can scarcely fail in the discovery of cases even in our midst. Especially those cases of slow pulse arising during the course of and following acute infectious diseases should be closely observed, always keeping in mind the fact that syncopal attacks may not arise so long as the recumbent posture is maintained.

Retention of Urine and its Relief.*

By Dr. Owen-Smith, Asheville, N. C.

Retention of urine and its relief is a subject upon which volumes might be written, for the field here of cause and effect is a broad and equally important one. The condition is one which at any moment may demand the attention and prompt action of any one of us; and often will tax the ingenuity and skill of the most alert and practiced surgical expert.

*Read before the Tri-State Medical Association meeting at Charlotte February 18, 1908.

Retention of urine is a quite frequent occurrence both in surgical and general medical practice. It demands immediate and complete relief on all occasions—delay is hazardous—and the emergency must be met promptly; alleviating not only the patient's physical distress and mental anxiety, but also the possibility of immediate dangers and sequelæ.

The relief is often readily effected by the average practitioner with the ordinary simple methods, but the obstacles to catheterization are often many and perplexing. Every surgeon appreciates the gravity of such cases, and many of us can recall bygone experiences that are still painful. The average patient and most of the laity failing to appreciate the difficulties, and only estimating the skill of the operator by the visible results from the first manipulations.

We younger men have all had some sad experiences, and been filled with wonder and astonishment to see a bladder, which we felt at the time could not be reached by urethra, easily and safely emptied with the *right* catheter controlled by the gentle hand of an operator who *clearly* and *definitely* understood and appreciated the *character* and *amount* of the obstruction to the urinary flow.

We are all better prepared nowadays to cope with any impediment to the urinary flow, for of late years more careful study and investigation has been directed to the male urethra.

Sir Henry Thompson was the first writer to thresh out the kernels from the chaff, and with his clear and classic utterances led the profession out of the quagmire of vagueness and uncertainty and lack of specific precision, which had so characterized the writings upon this subject up to this time.

Since Sir Henry Thompson's time little that is new or original has been written. However surgeons have grasped the problem with a greater knowledge and certainty. So by applying his teachings and precepts have been able to do more work, and better work, and in this way by rearranging, extending, and adding their individual experiences have broadened the knowledge, giving a much wider application to the original principles laid down by this illustrious surgeon.

So I feel that if I can reflect a little from the greater lights so that you may perchance catch a ray or two which will be of help or interest to you I will be very glad, indeed, and feel that I have not taken your time without recompense.

When we know the cause and degree of retention—having a clear and definite knowledge of the amount and character of the obstruction we will relieve *all* of the cases of acute retention; for we will make the proper choice of instruments and procedures, without jeopardizing our patient or giving ourselves cause for uneasiness, certainly we will not procrastinate.

The choice of instruments cannot be made at haphazard, nor the use of metallic catheters, soft, long, straight and overcurved or conical English or French olivary gum catheters be advised indiscriminately. The proper choice of instrument depends upon the *due* and *accurate knowledge* of the *pathological cause* of retention.

Causes of Retention of Urine.

The bladder may fail to empty itself from a number of causes, brought about by either an *obstruction* to the outflow of urine or to *defective expulsive* force.

Obstructive causes may be mechanical, such as strings or ring tied around the penis, insertion of foreign bodies into the urethra. All of these may be seen in children or erotic freaks. Pressure from a gravid uterus or impacted feces. It not infrequently happens that a calculus from the bladder becomes arrested in its journey through the urethra, especially at its prostatic or membranous part, thereby mechanically stops the flow of urine. Tumors of the bladder or urethra may obstruct the flow in the same manner. Rupture of the bladder or urethra are also met with which give rise to retention. The three chief obstructive causes of retention are:

(1) Retention as the result of organic stricture of the urethra.

(2) Retention dependent upon acute inflammatory engorgement of the prostate gland.

(3) Retention the result of hypertrophy of the prostate gland (senile enlargement).

Defective expulsive force may result from paralysis, atony, rupture or injury, shock, exhausting illnesses as long fevers, etc. The toxic action of drugs or the modified nerve action, either central or by reflex inhibition.

I will not go into the subject of retention from defective expulsive force at this time; and as *all*, except the *last three* causes given under the heading of *obstructive* causes, demand that the ordinary rules and surgical procedures be carried out, I will not go into details of symptomatology nor treatment here.

Retention Produced by Urethral Stricture.

Urethral stricture causing urinary retention may be either (1) spastic stricture due to spasm of the musculature, usually the symptom of other disease processes, as inflammation of the urethra, bladder or rectum, it may also be the result of psychic influences; (2) *inflammatory strictures* occur-

ring frequently during acute gonorrhœa, rarely chronic gonorrhœa or chancre of the urethra; or any condition or inflammation giving rise to swelling and oedema of the parts involved. This condition is not infrequent following operations upon the rectum for hemorrhoids, prolapsus ani, etc.; (3) *organic stricture* is the most frequently met with and being of especial interest to the surgeon as a cause of urinary retention it will be the only one to which I shall confine myself in this discussion.

The term stricture is used to cover a multitude of conditions, but if limited to the pathological obstruction of the urethra from idiopathic or gonorrhœal cause, with the exclusion of mechanical causes—stricture following trauma or surgical operation—retention is never absolute as the stricture *is* permeable and passable.

I will therefore not take up the traumatic cicatricial strictures, etiologically speaking, but take the inflammatory strictures, for which chronic gonorrhœa is the most frequent and prolific cause.

It is not until the inflammation invades Littres glands, or by following the depressions of the mucous membrane, and involves the submucous and cavernous tissue, with deep infiltration, that we have the consequent cicatrization. This process may extend over quite a period of time and the symptoms preceding a urinary retention have been of gradual development. During this time there are changes in the character of the urinary stream; it being gradually reduced in diameter, becomes forked or spiral, perhaps twisted with a lessened propulsive force, and a tendency to dribble. As the lumen of the urethra becomes gradually more constricted, micturition becomes more frequent and painful. The urine is passed in smaller amounts; at times only escaping in drops or in a dribbling and insignificant stream, without a complete evacuation of the bladder being possible. At times catheterization becomes necessary. During this time the patient is not only wretched, but may at any time have an acute retention, or fall heir to innumerable complications and sequelæ. From the disintegration of the ammoniacal urine (residual urine) or as the result of catheterization, cystitis is frequent.

In young men, with rapidly forming strictures, we are apt to have a concentric hypertrophy with diminution in the size of the cavity of the bladder. In others with the frequent and intense desire and effort to empty the bladder we have an hypertrophy of the musculature and consequently a reticulated bladder.

So with the retention of the urine in such an hypertrophied bladder we are very apt to have an early rupture or the formation of diverticula. Also the dilatation and vesical inflammation often extends to the ureters and renal pelvis, bringing on a pyelonephritis and perhaps destruction of the kidney.

At some time, possibly without any apparent cause, or perhaps as the result of some trivial excess, which may be ever so slight in eating or drinking, or sexual irritation, exposure to cold or dampness, or unaccustomed exercise, something in short which has proven "the last straw," retention has taken place.

This patient applies for surgical aid, and while he is not as nervous and irritable as the man with an inflamed prostate, he depends on the skill and adroitness of his surgical advisor and all efforts must be spent *at once* to relieve the local trouble without further shock.

As I said in the premesis there are so few, if any, impermeable or impassable strictures due to pathological causes, that when we attempt to relieve a urinary retention by the passage of a No. 8 or 10 round-pointed metallic or English soft catheter, and fail as we so often do, we must *not* throw up our hands and consider the stricture impassable. Nor should we mutilate the delicate mucous membrane with an unsuitable instrument or rough and continued attempts to force an entrance into the bladder.

If the orifice of the stricture is small and tight or eccentrically situated in the urethral circumference, repeated or forcible trial or pressure with a round-pointed instrument is apt to force the mucous membrane over the orifice without entering it. This minute and distorted cleft or stricture opening is so rammed or closed more tightly and the difficulty of detecting and entering it will thus be increased.

When we are fortunate enough to have an endoscope present, a fine probe or filiform bougie may be passed, by sight, through the opening, over which the tunneled catheter of Gouley may be threaded and passed into the bladder with the filiform to guide it through the opening. Even with the endoscope, in many cases it is impossible to find the opening or pass a probe through it, especially if the cicatrix is to one side of the median line, or if there are fistulas, false passages or diverticula present. However, pressure upon the bladder will often indicate the opening by a drop of urine.

Without an endoscope, filiform bougies are the best and safest and most satisfactory instruments with which to overcome the difficulty.

It may not be remiss for me to say a word or two here concerning filiform bougies and their use. There are many different kinds and makes in use, some good, some bad,

and some indifferent. The old whalebone filiforms, now almost, if not quite, obsolete, were too stiff, often rough and so brittle as to snap in two in the urethra. They were also *not* sterile and could not be made so. I have found the fine French bougies to give me the greatest satisfaction; however any make will do so long as the filiform is the proper length (12 to 15 in.), elastic yet sufficiently resistant, not rigid nor sharp pointed, and capable of standing repeated sterilization. The majority should be straight, but a few with elbowed or slightly angled extremities will be found useful in some cases. They should be from about 12 to 15 inches in length and approximately 1-32nd of an inch in diameter, or of a diameter corresponding to the tunnel of the smallest Gouley catheter.

The introduction of filiform bougies requires the greatest care and patience, and needless to say *asepsis*. Local anesthesia may be used but is rarely needed in these cases. The meatus and urethra should be thoroughly cleansed and then filled with sterile oil. With a slight rotary motion and gently pulling on the penis pass the filiform down to the stricture. Don't be deceived if the filiform should engage in a urethral follicle or impinge in the mucous membrane. When the stricture is reached, rotate the shank or upper end of the filiform between the thumb and fingers, at the same time gently pushing it forward.

If you are so fortunate as to enter the stricture orifice, well and good, but such is not often the case. If the point does not so engage, leave the filiform in place, and immediately pass down another one with the same manoeuver; and if necessary a third, fourth, and perhaps a fifth, sixth or seventh, "like a bundle of arrows in a quiver." Then while the bundle is held firmly, each filiform is tried separately, when nearly always one of the number will enter the stricture orifice. Not suceeeding with all straight bougies, as may be the case, use one or two with an elbowed or slightly angled extremity.

If after a patient effort has been made with each one of the filiforms, the opening is not detected, the stricture is probably directed to the right and away from the surgeon. So bearing in mind that an operator instinctively, as well as involuntarily, works toward himself, change your position to the right side of the patient, withdraw the bundle of filiforms an inch or so and repeat the manoeuver with each bougie, and success will usually be attained.

The filiform having passed through the stricture opening into the bladder a tunneled Gouley catheter is threaded over it and passed down to the stricture, but *don't* try to push the Gouley through the opening while holding the filiform and making the catheter slide along it. Withdraw the filiform from a half to one inch from the bladder and then holding the filiform and catheter firmly together push them gently on, maintaining unchanged this relative position of both instruments. The catheter will thus engage the opening and pass on into the bladder.

I have found in some instances, where it was impossible to pass a metallic Gouley catheter, that an ordinary small, (9 or 10 F.) straight, and flexible catheter threaded over the filiform, used in the same way as the metallic, would pass the stricture.

In a few extreme cases it will be found impossible to pass any catheter over the bougie through the stricture. In such a case the urine will often escape along the filiform by capillary action and relieve a distended bladder in the course of an hour or two. This will furnish temporary relief and permit us to prepare for the more radical and permanently beneficial procedure.

Where it is not the part of discretion—or circumstances forbid—to proceed with the restoration of the urethral canal, and because of extreme tightness or irritation of the stricture, we anticipate a recurrence of the retention, it is wise to withdraw the filiform enough to avoid irritation of the sensitive membrane of the vesical triangle and leave it tied in situ until more permanent relief can be secured and assured.

Following an attack of retention from organic stricture we have learned from clinical experience that with the proper sedative, hygienic, and dietetic treatment, recurrence is not often encountered and the retention does not take place again for some time.

I cannot pass on, however, without reminding you of the prophylactic treatment here and urging that these strictures be properly treated with the restoration of the urethral calibre before retention has taken place.

Perineal section and the complete removal of the cicatrix will give the greatest degree of comfort and absence of anxiety to both patient and surgeon.

In complete retention, when *all* efforts as mentioned above or at hand have failed to relieve, a suprapubic cystotomy is the operation of choice and will afford time and preparation for a complete removal of the cause.

Retention of Urine Produced by Acute Inflammatory Engorgement of the Prostate Gland.

Acute prostatitis rarely occurs as a primary inflammation, but usually occurs as an

extension or contiguity of neighboring organs; most frequently the urethra, less often the bladder.

The indiscriminate use of injections and instruments during an acute urethritis, or following an imperfectly cured gonorrhœa, are responsible for the infection and inflammation of the prostate in the majority of cases. Traumatism, violent and prolonged exercise, particularly on horseback, may give rise to an acute inflammation of the gland. Any one of these causes may bring about a rapid and marked vascular congestion of the whole gland, or perhaps one or more of its lobes. The lateral lobes are most frequently inflamed, and rarely one without the other.

This engorgement often so compresses the prostatic urethra as to greatly interfere with the flow of urine or complete retention may be brought about.

The inflamed prostate gives rise to severe pain in the gland, throughout the length of the urethra, and especially in the head of the penis. The pubic and perineal regions are tender, as is also the gland and surrounding tissue upon rectal examination.

When retention takes place the constitutional symptoms are marked. The pulse is rapid and often wiry, there is high fever, and while the face is flushed the forehead is usually covered with sweat. The irritability and disquiet of the patient increases with the distention of the bladder. In his violent efforts to void urine or increase the capacity of his bladder by change of position he can't keep still and often is demoralized and dances about the room. He thus runs great risk of rupture or of atony from overstretching of the muscular fibres of the bladder wall.

Relief must be forthcoming, the bladder reached and the retention relieved, if possible, on the first and single trial. Prompt relief must not be limited by palliative procrastination, as in days gone by, when warm baths, hot applications and opiates were resorted to with the idea of relaxing the so-called "spasm."

Anesthesia and a happier instrumentation have saved many a poor sufferer from being tortured in these latter days.

Make the first attempt to catheterize without an anesthetic, but very often the condition of the patient, as outlined above, will almost, if not quite, prohibit any instrumentation without an anesthetic.

The retention here it will be remembered is due to *compression* of the urethra by the swollen and tender gland substance. The caliber of the urethra is not organically lessened, its mucous surfaces are simply pressed together.

Possibly the length of the prostatic urethra is temporarily increased and rendered tortuous by the tension of the full and distended bladder.

To traverse such a canal, the catheter should be so soft as not to bruise the tender and swollen mass; and to do this it should possess a flexible lower extremity two or two and a half inches in length. The upper five-sixth of the shank or handle should be stiff or firm. In the majority of cases the *elbowed* flexible catheter of Mercier can be readily passed. Failing to pass this catheter the straight soft rubber catheter of Nelaton, with the ordinary stylet to maintain the rigidity and form needed, should be tried. This can be bent, and several different curves made possible with the same instrument.

I would discourage even an attempt, be it ever so gentle and conservative, with the prostatic silver or metallic catheter, as well as the ones of block tin. The silver catheter has too pointed an extremity and the improper curve unfits it for common use. The malleable tin catheter can be bent to meet the demands of a very devious entrance to the bladder, but if used at all, it must be with the most *infinite care* and *gentleness*, appreciating *all* the while that it is bending in the urethra and *is* exceedingly liable to *break*.

The long-curved tunnelled catheter stiffened by a whale-bone guide may solve the difficulty in some cases.

Let me impress you with the fact again that the *time* for these manipulations is *limited* and that the *dangers* from *immoderate*, *careless* or *unwise demonstration* is never to be *underestimated*.

By employing either the Mercier or Nelaton catheter, stiffened as mentioned above, especially the elbowed Mercier, and with the patient in the proper position (dorsal) most of these cases will be catheterized at the first trial with very little delay or discomfort.

The catheter, if a Mercier, should be pushed gently down with the projection of its beak presenting upward until the swollen gland or obstruction is reached. Here a soft, boggy resistance, sometimes more than an inch in length, will be found and a certain amount of pressure, *not force*, will be necessary to traverse the obstruction and reach the distended bladder.

The distressing symptoms almost immediately abate as soon as the accumulated urine is withdrawn. The inflammatory engorgement of the prostate does not diminish so rapidly, and in some cases, especially where great difficulty has been met with in passing the catheter, it may be wise to leave the catheter tied in situ for at least twenty-four hours. This form of retention rarely

occurs or redevelops, especially if the exciting cause is relieved and is not renewed.

If the over-distention of the bladder has lasted for any length of time, so that the muscular fibres have been greatly stretched, a temporary atony, or loss of contractility may ensue. With this loss of power by the bladder to empty itself, the reaccumulation and retention of the urine will demand surgical aid and catheterization again. All cases, therefore, of this retention should be carefully watched and catheterized at regular intervals until normal urination is established.

Retention from Prostatic Hypertrophy, (Senile Enlargement.

The most important pathological change of the prostate is hypertrophy, and this condition is, in a great number of cases, sooner or later the cause of retention of the urine.

The form of hypertrophy depends upon the amount of hyperplasia taking place, to a certain extent, in the glandular or muscular part of the gland substance. This distinction must be made in the early stages, for later both parts are involved to a greater or less degree in all cases.

The hypertrophy may involve all three lobes, or only one, perhaps two. The middle lobe is less frequently involved than either of the lateral lobes, but usually the whole gland or all three lobes are affected simultaneously. If the middle lobe is involved it is of the muscular type, being less rich in glandular elements, and is spread out and broader than usual, but may be elevated or pedicled. Such a lobe may extend into the bladder and act as a valve to obstruct the urethral orifice, especially when the bladder is full and contracts down firmly, thus giving rise to retention of the urine.

Whenever the prostrate is enlarged the prostatic urethra will be pressed upon from one or both sides and necessarily becomes altered in length and caliber. These influences may so variously combine as to distort, elongate, curve, produce an angle or render it tortuous, and the urine will be impeded and perhaps inhibited. Under these conditions the prostatic urethra may be increased to two inches in length.

The opening of the urethra is pushed forward and upward, thereby producing a pouch of bladder behind the enlarged prostate.

When the lateral lobes are hypertrophied the urethra is compressed from side to side and elongated. If the middle lobe is hypertrophied the urethra is bent forward at an acute angle, leaving a recess so formed, which makes the passage of a catheter extremely difficult. It will be seen that a catheter entering the bladder under these conditions must do so by following one of the grooves into which the urethra has been divided by the middle lobe. It will also be seen readily from the above that the lateral and posterior walls of the urethra are altered, leaving the anterior wall more or less unaltered or affected. So without hesitation we will select an instrument, for entering the bladder, so constructed that the beak will be guided along the anterior wall.

The internal sphincter is so often involved in this hypertrophied prostate that it cannot be recognized as a well marked ring. The internal orifice often being a swollen ring in which there is no trace of a sphincter; the hypertrophied prostatic tissue lying just under the thickened mucous membrane. Some remnants of the sphincter may remain in the posterior commissure and serve to join the lateral lobes, and thereby form the "muscular barrier" so often encountered and heard of. This barrier is the cause of so much difficulty in passing an instrument in some cases. Also when the urethra is curved abnormally forward this is the seat of many false passages where unskilled, unnecessary, and rough instrumentation is persisted in.

The urinary passages (as well as the kidneys in some instances) all suffer from this interference with urination. The evacuation of the bladder is imperfect; this leads to eccentric hypertrophy; diverticula are formed; the muscular fibres of the bladder wall lose their tone and relaxation takes place. The bladder is no longer able to empty itself. The *residual* urine becomes ammoniacal and by its irritation sets up a cystitis, which inflammation may in turn extend to the ureters and perhaps the kidneys. Frequent catheterization by itself or in addition to the mechanical obstruction will produce cystitis, ureteritis, pyo-nephrosis and nephritis, with complete retention of urine occurring at any time or anywhere along this march of events.

Sudden obstruction may be the result of an acute congestion of the dilated and varicose veins, which are so often combined with hypertrophy of the prostate, causing the gland to temporarily greatly increase in size.

The symptom complex of hypertrophy of the prostate is familiar to all, but in rare instances the first intimation of this trouble may be an acute retention of the urine. This may follow some trivial indiscretion in eating, drinking, exposure to cold or dampness, or the too long voluntary retention of the urine; all of which may have been indulged in before without this complication or result.

Bear in mind that the obstruction to be

overcome is the pressure of the swollen lateral lobes, and the upward and perhaps irregular projection of the middle lobe of the gland. The urethra is still in place, but tortuous and elongated.

The instrument required is *not* a metallic instrument, but one with a soft and pliant extremity. A metallic instrument is very likely to produce a false passage, or at best irritate and perhaps rupture the mucous membrane, predisposing infection. Metallic instruments of all kinds and curves, for this use, are rapidly being discarded and thrown into the junk pile where they belong.

The Nelaton catheter, so stiffened as to give a firm shank, leaving a flexible point, will answer admirably when the middle lobe is not prominent. In this case, for the projection of the middle lobe, an upturned tip, in fact the elbowed catheter of Mercier (angle 110) guided by a gentle and intelligent hand, with possibly a finger in the rectum to assist, will be found to enter the bladder easily and comfortably.

By placing a Mercier catheter in hot water we may bend it to any desired curve, and in this way it will be found to follow a tortuous urethra, and with the elbowed tip will easily ride over the projecting middle lobe.

Hey's method will often be found to give a happy result.

Do *not* subject the patient to *prolonged*, perhaps *strenuous*, and *unsuccessful* attempts to introduce any catheter.

If you are not prepared to expose and open the bladder supra-pubicly, or perineal or a complete prostatectomy, then supra-pubic aspiration may be resorted to and immediate relief afforded. Aspiration gives speedy relief and may be used in an emergency, but in the majority of cases the altered condition of the urine and the bladder walls are strong contraindications.

False passages are inexcusable, either the proper instrument has not been chosen, or the hand that controlled it was not gentle and the operator did not have a clear and definite idea of the character and amount of the obstruction, *all* of which are essential and can be gained by a little patient and intelligent work.

The many reasons for scrupulous *asepsis* in dealing with all these conditions and with *all* catheters, are so very evident to every one that I will refrain from all but mentioning the subject.

When a bladder has been over-distended, as is the case in all retentions, it should be emptied very slowly, and in most cases a small amount of urine should be left in the bladder. Rapid evacuation is followed very often by congestion and perhaps hemorrhage. Also the ureters have possibly been dilated with the pelvis of the kidney, and even the capsule of the kidney stripped off; if this positive pressure, produced by the retention, is made a negative pressure rapidly, then anuria is inevitable.

A Drugless Clinic.*

By E. H. Martin, M. D., Hot Springs, Arkansas.

The title of this paper may suggest that I have abandoned the use of material medicaments and have been experimenting with some occult force or have been trusting to suggestion or mental healing. Let me hasten to correct such an impression. My drugless clinic consisted in recording the progress of a number of cases who have been taking the baths at Hot Springs without any medical treatment to reinforce their curative effects.

I read papers in April and May before the Mississippi and Louisiana State Medical Associations on the physiological effects of the waters of the Hot Springs of Arkansas. In making the experiments and investigations on which these papers were based I was struck with the further importance of investigating the therapeutic effects of these baths. Also with the impossibility of correctly judging the therapeutic effects of the baths on patients under medical treatment. And as a matter of course no physician could experiment upon private patients. That might be done by the family physician at home but not by a temporary medical advisor at a health resort. Our private patients being away from home and at considerable expense generally preface an examination by stating that they can only stay at Hot Springs for a limited time and demand everything possible to secure the greatest degree of benefit that can be obtained during a few weeks.

There being no way in which the therapeutic effect of the baths, unaided by medicines, could be observed in the regular course of practice I turned to the Government Free Bath House where a large proportion of the bathers not only have no medical advice but have no money with which to buy medicines and are forced to rely on the effects of the baths alone to give them relief.

These poor people go to Hot Springs with barely enough, and in many cases insufficient, means to procure food and shelter. There they live from hand to mouth, badly quartered, frequently poorly fed, depending upon charity, odd jobs or uncertain remittances from home for the actual necessities of life, and many of them do not consult a physician because, while medical advice

*Read before the Tri-State Medical Association of Mississippi, Arkansas and Tennessee, Nov. 20, '07.

may be obtained free of cost, it would do them no good without the means of having their prescriptions filled.

It struck me that if the baths gave any useful therapeutic effects against such odds of lack of nourishment and poor living that such effects must be very genuine. I found that over 150,000 baths are given to nearly 5000 indigent sick annually, an average of over 400 bathing at this one bath house every day. The Government reported 93 per cent. as benefited and over 18 per cent. as "*cured*" but kept no separate records of those depending on the baths alone and those also taking medical treatment.

So I made application to the Interior Department for permission to make special examination of bathers at the Free Bath House for the purpose of making clinical records, such examinations to be with the permission of the person examined. This was granted after months of waiting, and not until July was I able to commence these observations, the recording of which constitutes my drugless clinic. I could only give the hour from 8 to 9 a. m. to this purpose, and as the bathers are coming and going all day I had to be satisfied with those whom I could see at that hour. Many were taking medicines prescribed by friends, prescribed over counters, patent medicines, remedies brought from home, and a few had regular medical advice. None of these interested me and I only kept records of those who were taking no drugs whatever, excepting purgatives when actually needed, the baths having a tendency to constipate most patients. These patients further agreed in every instance to notify me if at any time they began taking medicine, so that I might file their histories away as abandoned. This accounts for many of those whom I class under "Insufficient Report" in the following lists. I give below a list of the first one hundred consecutive cases recorded in this drugless clinic. Of these, 35 will have to be excluded under the head of insufficient report to form judgment. Of the remaining 65 cases there were 9 recoveries, 17 greatly improved, 8 much improved, 23 improved and 8 unchanged, all without a dose of medicine. Of the 17 classed as "greatly improved" some cases are still under observation and will probably result in recoveries, clinically speaking. The 100 cases were as follows:

Various forms of rheumatism,	38	Cases.
Different stages of syphilis,	25	"
Neuritis,	5	"
Malaria,	4	"
Gonorrhœa,	4	"
Neurasthenia,	3	"
Chancroid,	3	"
Non-syphilitic ulcers of leg,	3	"
Acne,	2	"
Nasal catarrh,	2	"
Hemiplegia,	2	"
Locomotor ataxia,	1	"
Dermatitis,	1	"
Morphinism,	1	"
Bright's Disease,	1	"
Hysteria,	1	"
Gall bladder disease,	1	"
Cystitis, non-venereal,	1	"
Syphilophobia,	1	"
No diagnosis made,	1	"
	100	"

Of the 38 cases called rheumatism 16 were classed as chronic, and these were the results:

Recovered,	1	Cases.
Greatly improved,	3	"
Much improved,	1	"
Improved,	2	"
No change,	3	"
Insufficient report,	6	"
	16	"

Eight cases were classed as subacute rheumatism and fared thus:

Recovered,	3	Cases.
Greatly improved,	1	"
Improved,	3	"
Insufficient report,	1	"
	8	"

The gonorrhœal rheumatism numbered an unlucky 13:

Recovered,	1	Cases.
Greatly improved,	2	"
Much improved,	1	"
Improved,	3	"
Insufficient report,	6	"
	13	"

There was one case of muscular rheumatism which I was unable to classify as to etiology, insufficient report.

The 25 cases of syphilis were 16 in the secondary stage, 8 in the tertiary and 1 hereditary. The 16 in the secondary stage gave these results:

Greatly improved,	6	Cases.
Much improved,	1	"
Insufficient report,*	9	"
	16	"

*Nearly all 9 began inunctions.

The 9 cases of tertiary syphilis were as follows:

Greatly improved,	1	Cases.
Much improved,	2	"

Improved,	2	"
No change,	1	"
Insufficient report,	3	"
	9	"

The one case of hereditary syphilis improved.

The five cases of neuritis resulted in:

Recovered	1	Cases.
Greatly improved,	1	"
Much improved,	1	"
Improved,	1	"
No change,	1	"
	5	"

The four cases of malaria gave:

Recovered,	1	Cases.
Greatly Improved,	1	"
Improved,	2	"
	4	"

The four cases of gonorrhœa resulted as follows:

No change,	1	Cases.
Insufficient report,*	3	"
	4	"

*Began medical treatment.

The three cases of neurasthenic were all improved:

Greatly improved,	1	Cases.
Improved	2	"

The three cases of chancroid:

Improved,	1	Cases.
Insufficient report,*	2	"
	3	"

*Began local treatment.

The three cases of leg ulcer, non-syphilitic:

Recovered,	1	Cases.
Improved,	1	"
Insufficient report,	1	"
	3	"

Of the two cases of acne one showed slight improvement and one gave insufficient report.

The two cases of nasal catarrh (non-specific) were, strange to say, both much improved.

Of the two cases of hemiplegia one case resulted in recovery after 52 baths. This case was of 10 months standing and the recovery was probably a natural event. But the recovery was very complete. The other case of three years standing was greatly improved.

The case of locomotor ataxia (without syphilitic history) was much improved, whether incidentally or not I can only guess.

The case of dermatitis was greatly improved.

The case of morphinism was much improved in general health and the daily use of the drug had been reduced to a minimum when the case was lost sight of.

The most remarkable result was shown in the case of chronic nephritis which after 20 baths became clinically well; declared himself well and left for home without giving me an opportunity to make a final examination of his urine. Cardiac compensation had resulted and the shortness of breathing and all œdema had disappeared.

The case of hysteria was much improved after only 6 baths. I will not claim credit for the baths for this.

The gall bladder case made no change and went home by my advice for surgical interference.

The cystitis case was slightly improved; later failed to report.

The man with syphilophobia, a state of mind frequently seen at Hot Springs, was only under observation a short time when, in spite of having been assured by others as well as me that he had no syphilis, he began rubbing "Sixes." These cases of uneasy conscience are far more troublesome than a dozen cases of real syphilis. They go from one physician to another, never satisfied with an assurance that they have not syphilis, until finally they fall into unscrupulous hands and are put upon antisyphilitic treatment for the sake of a fee.

I was recently consulted by two patients, man and wife, who had come 700 miles for antisyphilitic treatment and Hot Springs baths. The man told me that a year ago he had been away from home and wife for a month and during that time had for the first time in his life had illicit sexual intercourse. A week later he was awakened in the night with a violent cramping in his bowels and a diarrhœa, no venereal symptom but he thought he had caught something. With a heavy heart he went home and naturally an intercourse with his wife followed. One week later his wife awoke in the night with a violent cramping in her abdomen followed by a diarrhœa. Then he was *positive* that he had some terrible "blood disease" and had given it to his wife. I can convince that man that he has not syphilis, in fact I do convince him of the fact nearly every day, but he comes back the next day just as much worried and unconvinced as ever. Such cases of guilty conscience taking the form of syphilophobia are frequently seen at Hot Springs.

With apologies for the above digression

I will return to my drugless clinic.

The results which I have given in the above analysis of 100 cases must be considered with due regard to the social condition of the patients, to their lack of proper nourishment in many cases, to unsanitary environment and to the short time during which many of them were under observation. When so considered the results will compare very favorably with those in an equal number of cases under the best medical treatment. Understand, I am not belittling medical treatment, quite to the contrary, many of those cases classed under the head of "insufficient report" were so classed because I had, out of pity for the time being lost and suffering prolonged, advised and urged, and frequently provided means for, medical treatment.

And now we come to a consideration of how these baths alone could have accomplished such results. This brings us back to the physiological effects in explanation of the therapeutic effects. I will quote liberally from the papers before mentioned.

1. For the sake of comparison, I first called attention in those papers to the fact that ordinary water, no matter how hot, will cause no rise of temperature in a healthy subject immersed therein—the thermolytic centers guarding against any increase of temperature from conducted heat.

2. I next called attention to the remarkable phenomenon observed when any person is immersed in a bath of Hot Springs water at a temperature even lower than that of the body—the subject's temperature rising very promptly in a few minutes to 101, 102, 103, and even to 105 degs., Farenheit, if kept in the bath very long, the pulse increasing in rapidity correspondingly.

3. I explained this rise of pulse and temperature by the very evident increase in metabolism and combustion in the cells of the patient's body—this increase in cell activity being the source of good or evil peculiar to the Hot Springs bath.

4. I offered a simple method of dosing this increased metabolism and keeping it within the bounds of good for any particular case by the use of the clinical thermometer. First judging from an examination of the patient how great a reaction would be desirable, I direct him to be removed from the tub when his sub-lingual temperature reaches that point.

5. The after effects of this increased metabolism were classified as eliminative and constructive, the elimination of the products of combustion and other poisons being evidently through skin, kidneys and liver, and the constructive effect being due to an increase in cell activity in the hematopoietic system.

6. In explanation of these remarkable and peculiar effects, produced by no other water and in like degree by no other agency, to my knowledge, I offered as a working theory the radio-activity of these waters. The links in the chain are the facts that an exposure to the X-ray increases metabolism, that the radium ray simulates in every important effect the X-ray, that radio-active substances have the same effect, to a certain degree, as the salts of radium, and that these waters have been proven by experts employed by the Government to be radio-active.

7. Attention was called to and stress laid upon the fact that these are not merely hot baths, that none of the effects obtained depend upon the temperature of the water, that the water being naturally hot is merely incidental, and that the same effects are observed if the bath is given at 94, 96, 98, or 100 degrees, in fact that the bath may as well be prescribed "comfortable" as to be given at any given temperature as far as the "Hot Springs effect" is concerned.

In addition to and as a support to these observations and deductions it is very evident that exhaustive experimentation should be made on the following lines:

1. To test elimination, it should be determined before the subject takes the baths, using perfectly healthy subjects to get the true physiological effect, the total solids eliminated by the kidneys within 24 hours; this to be done on several subjects and on several successive days. Then these subjects should be given the baths and the total urinary solids determined each day; also an estimate should be made by weighing the subject before and after the sweat, of the solids eliminated through the skin, (the specific gravity of the sweat to be used in making this estimate), and added to the total urinary solids eliminated. This has not been done and can not be done without great expense, as healthy subjects would have to be employed. The Government, as it owns the Springs, should send Dr. Wylie and his "poison squad" to Arkansas for that purpose.

2. To test the constructive effect of the increased cell activity of the hematopoietic system anemic subjects should be used and a hemoglobin percentage and a white and red blood cell count made before beginning the baths and again after every few baths, say once a week. In the meantime a regular diet should be observed and no medicines given which affect the hemoglobin percentage or the blood cell count.

Manifestly this is impossible in private practice.

3. The remaining obvious experiment needed is fortunately within reach of the

individual observer, that of the effect of the bath on the blood pressure. As is well known, any warm bath will have the effect of slightly reducing the blood pressure. But, with this bath causing an apparently sthenic fever accompanied by a pulse greatly increased in rapidity, one would naturally expect an increase in blood pressure. The contrary is the case, and in a series of experiments, which I have made at the tub-side, not all, however, on subjects in perfect health, the blood pressure fell from 5 to 50 millimetres of mercury for a two or three degree rise in temperature. This seemed very puzzling at first, but on consideration of the report of different patients, who had accidentally stayed too long in the tub and whose temperatures had gone to 104 and even over 105, the explanation at least seemed apparent. These subjects report symptoms not attributable to full arteries but to over-full veins, and I have no doubt that many of the cases of syncope, occurring in the bath houses, which are blamed on the heart are really due to cerebral anemia from the disproportionate amount of blood in the superficial veins.

As a matter of course, if the blood pressure in the venous system is increased, the blood pressure of the arterial system, as taken by the sphygmomanometer, is diminished.

With this knowledge that the baths do increase metabolism, that there is probably increased cell activity in diseased tissue as well as in healthy tissue, that absorption of exudates must be thereby promoted and that elimination of waste products is increased, that reconstruction of healthy tissue is accelerated, that more blood is made and more food assimilated, it is not surprising that certain classes of patients are benefited.

It will sound trite for me to call attention to the functions played by cell activity in life, to the fact that cell activity is life; normal cell activity is health, an increase above normal in the activity of the cellular elements of an organ generally means inflammation, a decrease below normal means chronic disease of some kind, and a cessation of cell activity means death.

So we see these baths forbidden in all cases of active inflammation and whenevel the temperature of the subject is above normal. And it is natural to expect benefit from them in cases of chronic disease with lowered cell action and sub-normal temperatures.

In no disease is a sub-normal temperature so constantly seen, especially of mornings, as in the various conditions classed as rheumatism, so it is not surprising that we find that 38 per cent. of these 100 patients were of that class. Twenty-five per cent. were syphilitic, and this proportion seems justified when we consider that to increase metabolism and vitality must mean to raise the opsonic index.

The malarial cases are a very small percentage of this series because malaria seldom drives the poor to health resorts, but in private practice we find a much larger percentage of malaria poisoned patients taking the baths and the benefit to them was a surprise to me as a swamp doctor, but the increasen activity of the blood making apparatus explains the prompt benefit to these cases.

The lowered blood pressure explains the probable modus of relief in neurasthenia and in many chronic diseases having arteriosclerosis as a cause.

It is not my purpose in this paper to go exhaustively into the physiological effects or therapeutic uses of the Hot Springs baths, such points of these subjects as I have touched on being called forth by way of commentary on the results observed in my drugless clinic.

412-416 Dugan-Stuart Bldg.

The Iodine Treatment of Puerperal Sepsis.†

By Chas. R. Robins, M.D., Richmond, Va., Professor of Gynecology Medical College of Va, Gynecologist Memorial Hospital.

It is not the intention of this paper to deal with the history, etiology and pathology of puerperal sepsis except incidentally. The principles governing these points have been thoroughly studied and amply proven, so much so that it would be a waste of time to discuss them at this meeting.

It is now universally conceded that puerperal sepsis is a wound infection in which various organisms may participate, but in which the difference in the disease is more or less that of a difference in severity. The attempts to isolate specific organisms from examinations of discharges has been to a great extent disappointing and not productive of any good, so that the classifications on bacteriological findings at the present time may be regarded as unsatisfactory.

Clinically we recognize two more or less distinct types, one in which there is a foul smelling discharge, and the other in which there is practically no discharge. The first is usually due to an imperfect evacuation of the uterus, and the second to a direct infection in which the streptococcus is supposed to be the leading factor and is a condition of septicæmia from the beginning. These two types are to a certain extent distinct, but so frequently merge that it is

†Read before the Tri-State Medical Association meeting at Charlotte February 18, 1908.

hardly safe to base our line of treatment on a differentiation.

I believe that to a certain extent harm has resulted from so great an emphasis being placed on the fact that infection is usually due to either the physician or the nurse, so that a doctor feels that for him to acknowledge that he had such a case would be to incriminate himself. There is no doubt that a great good has been accomplished by this line of teaching, so much so that every physician undertaking a case of obstetrics feels it incumbent upon himself to eliminate every possible means of infection. Unfortunately, however, notwithstanding these extreme precautions it occasionally happens that sepsis does develop. The explanation of this is that there are so many factors over which the physician does not have absolute control that notwithstanding the greatest care on his part infection may develop. We venture to say that there are few physicians of extensive experience who have not had a case of infection. In hospitals where the patient is absolutely under the control and care of the physician and his orders are thoroughly and intelligently carried out, it is possible to make puerperal sepsis an impossibility, but in private practice such a condition is extremely difficult to obtain.

My object in calling attention to this phase of the question is to encourage those who have the boldness and honesty to admit when they have a case of puerperal sepsis, because I believe that success in treatment must depend on a prompt diagnosis and the early application of the proper treatment. All of us are familiar with those cases which are recited, in which the patient develops a fever after a confinement, which runs a prolonged course and results in either death or impaired health, in which the diagnosis is made of malaria or some other extra-genital malady, and in which death is ascribed to heart failure or uremia or some other of the end results of a profound infection, and the doctor remarks that the case could not have been one of sepsis because he had taken every precaution. My proposition is that under the ordinary conditions that prevail at the present time, that given a certain number of confinements there will be a certain number of infections, and when a fever develops after childbirth that the burden of proof rests upon the physician to prove that the case is not one of puerperal sepsis. From such a point of view we can render great service in the treatment of this condition. There are so many grades of infection that it would be difficult in the short space of time which I propose to consume, to thoroughly outline the methods of making a differential diagnosis. The one point to which I wish to call attention is that in infections, involution of the uterus is invariably arrested and on examination instead of finding the firm and well contracted uterus of a normal puerperium, the uterus is several times this size and is soft and boggy.

The next point to which I wish to call attention is that whatever may be the ultimate termination of the disease, the primary seat is in the uterus or lower genital tract. In other words there is a stage in every case where the disease is local and may be treated by local measures. This is the most important point, and is especially to be considered because so many of the modern text books attempt to teach a sharp differentiation in the varieties of infection, in some of which local interference is advised and in others prohibited. The proposition that is presented to you herewith is that they are all primarily local and there is a time when they can be cured by local measures.

The method which I wish to advocate is not one for which I wish to claim originality. It was ably set forth in an article by Dr. D. J. Coleman, Professor of Obstetrics in the Medical College of Virginia, which appeared in the Old Dominion Journal, of February, 1904. It is, however, a method which I have employed with most gratifying results for some years, and is as follows: The patient is brought to the edge of the bed and the limbs properly supported. The anterior lip of the cervix is seized with a pair of volsellum forceps and the cervix brought down to the ostium vaginæ. The cavity is then explored with a dull curette and embryotomy forceps. This should be done in every case without reference to our previous conception of the completeness of the uterine evacuation. Almost invariably something will be brought out, but it does not follow by any means that the discovery of retained fragments reduces the case to one of sapremia. The presence of this foreign matter acts as a nidus for bacteriological invasion, and while in one case it may be that the infection is mild, in another it may be that of the severest type.

It is not necessary to remove anything except what lies within the cavity of the uterus. When the infection extends to the mucous membrane or beyond it is impossible to remove with a curette all of the infected tissue, and the use of a sharp curette simply opens additional avenues for infection. After the exploration and removal is completed the uterus is dried with cotton on a pair of dressing forceps, and after drying it is freely swabbed out with a pledget saturated with Churchill's Tincture of Iodine. In the majority of cases it is not necessary to provide drainage, and under any circum-

stances gauze drainage is objectionable. If the uterine cavity does not drain freely a rubber tube should be inserted. After the first curettement no other is necessary, but each day afterward the uterus should be swabbed out with iodine in the same manner until the temperature reaches normal and remains so for several days. When this treatment is used promptly and the temperature at once drops to normal no other application of iodine may be necessary, but when there is a delay in treatment great caution should be observed in discontinuing daily applications. I have observed cases in which the patient appeared to be entirely recovered, but in which the discontinuance of the treatment resulted in a return of the malady. The explanation was doubtless that the organisms had had their growth inhibited by the use of the iodine but that they had not been entirely destroyed.

I believe that in iodine we have the ideal antiseptic for this condition for the following reasons: It is, in the first place, a most efficacious antiseptic and destroys bacteria with which it comes in contact. In this it does not differ from many others. It has in addition, however, the property of penetrating, so that in the soft, boggy uterus found in infection the action is not confined to the exposed surface but is continued into the muscular tissue of the uterus. In addition to this the iodine is absorbed and as the absorption is continued along the same channels as the absorption of the toxines, the iodine not only sterilizes the endometrium and the walls of the uterus, but the lymphatic channels as well.

I am led to offer these observations because I have so frequently been called upon in cases of puerperal infection which appeared of the gravest character and which excited great apprehension on the part of the attending physician, in which this line of treatment has resulted in a prompt and complete recovery. In cases that are delayed there may be a great many complications and conditions arising, where this treatment, of course, cannot reach the seat of disease and is consequently not indicated; but to deal with all of these complications and their appropriate treatment would be foreign to the purpose of this paper. It is simply to set forth that puerperal sepsis does exist at the present day, that it may exist in spite of the most painstaking care of the attending physician, and that it can be almost invariably cured promptly if promptly recognized and properly treated.

Treatment of Prostatic Hypertrophy, with Report of Cases Operated on by the Perineal Method.†

By J. Shelton Horsley, M.D., Richmond, Va., Professor of Principles of Surgery and Clinical Surgery in the Medical College of Virginia; Surgeon to Memorial Hospital.

Every general practitioner sooner or later has the problem of how to treat prostatic hypertrophy thrust upon him. As I practiced medicine in the country for several years, I personally know how perplexing a question it is to decide just what is to be done with an old man who suffers from retention of urine, due to an enlarged prostate, when it is impossible to pass the catheter that the country doctor usually carries. Something must be done to relieve the condition, and without a supply of catheters of assorted sizes, shapes, and material, such as the hospital surgeon enjoys, relief is often urgently demanded, when it seems for the time being impossible. In considering these cases we should first of all consider the patient and not the disease. If, for instance, he is otherwise healthy and with normal heart and arteries, and not the subject of organic kidney trouble, morphine can be safely used to bridge over the immediate situation until local applications may reduce the congestion of the urethra and prostate, or until other catheters or an aspirating instrument can be obtained. However, in a patient who is old and feeble, whose heart, arteries and kidneys are all affected by sclerosis, and who already has symptoms of uremia, such as mild delirium, morphine will be contraindicated, and too much time cannot be wasted before evacuating the bladder. This is true not only because such patients stand both pain and morphine badly, but because if the bladder of a nephritic case becomes greatly distended, when it is emptied suppression of urine is much more likely to occur from the resulting hyperemia that affects the kidneys than would be the case in a patient whose organs were practically normal.

The first thing to do in any case of retention of urine from an enlarged prostate is to examine the patient thoroughly. If you have previously treated him, and are acquainted with any diseased condition, so much the better; but even then the patient should again be gone over. His temperature should be taken, his heart, lungs and general vascular system examined. After this examination, which on account of urgency must often be hasty, the prostate itself should be examined through the rectum. This step is exceedingly important,

†Read before the Tri-State Medical Association meeting at Charlotte February 18, 1908.

for it gives the practitioner a much more intelligent idea of the pathological condition he must treat. Sometimes a large prostrate almost filling the whole rectum is found. Again a small and firm prostate that may act somewhat as a ball valve can be detected. Again it may be determined that the trouble is due to an old stricture and not to prostatic trouble at all. An enlarged prostate practically never accompanies stricture, particularly if the stricture is of small size. This is due to the fact that the anatomical conditions about the prostate are such as to render the growth of this gland likely to protrude into the bladder more markedly than at other points on account of this direction being the line of least resistance, and the hydrostatic pressure from urine dammed back by the stricture prevents enlargement of the prostate. Having determined which of these three conditions exists, that is whether there is a large or small prostate, or whether there is a stricture, the practitioner can select a long catheter if he has several; or, at least, he can be prepared to introduce a catheter to its extreme limit, as a very large prostate frequently lengthens the urethra from its normal eight inches to twelve. If, on the other hand, a small prostate is felt, the instrument can be chosen or introduced accordingly. If there is a stricture, filiform bougies may be used, which, of course, would be of no avail but positively dangerous in prostatic hypertrophy. After having examined the patient, if there is much pain and the symptoms are very acute it may be necessary to give morphine hypodermically. It would be well to keep the patient at rest, to have the room well heated, and hot applications applied over the bladder just above the pubis. This is better than the ordinary Sitz bath, where the position of the patient is such as to induce congestion of the prostate from gravity, and likely to chill him in other portions of his body. However, if the room is very warm and hot applications do not avail in bed, the Sitz bath may be resorted to. An enema of a pint of salt solution sometimes helps matter materially. In acute cases where the prostate is very tender and rather soft, these measures should be first tried for several hours before attempting to pass a catheter. Not only is the danger of infection very great in such instances, but the tissues being soft may be easily penetrated, and considerable hemorrhage may result, together with a raw surface which is most likely to be a point of infection. In patients who have had numbers of attacks, and whose prostates are firmer, the catheter may be passed more promptly.

It is probably not necessary to urge the great importance of extreme care in asepsis in such cases. Physicians are too likely to remember chronic prostatics who pass the catheter themselves every day without infection, and forget that the local condition of the tissues in such chronic cases is well prepared to resist infection, whereas in the acute cases of retention, such as we are considering, the slightest infection is likely to be taken up by the prostrate and dire consequences may result. The urethra should be carefully washed out with some mild antiseptic, and the vaseline should be boiled. This can easily be done by putting a small amount of it in a bottle and placing the bottle in the same water in which the catheter is boiling, while the physician is cleaning his hands and washing out the urethra. Too frequently, after careful preparations in other respects, the whole result is vitiated by the use of some lubricant that is not sterile.

All these things can be done in any log cabin, and there is no excuse for neglecting them. The catheter should be a soft rubber catheter, and should be well annointed with the sterile vaseline to prevent any injury by rough places scratching the urethra. If it is found to be impossible to introduce the catheter, a five per cent. solution of cocaine, or a solution of adrenalin, about one part of the stock solution to two parts of water, may be injected into the catheter with an ordinary glass syringe. Not more than two drachms should be injected. After waiting five or ten minutes, sometimes the congestion is so relieved that the catheter can be readily introduced. However, should this not be possible other catheters may be used. Force should never be attempted. As a rule, if a small sized soft rubber catheter cannot be gotten into the bladder after careful attempts to pass it, prolonged efforts with stiffer catheters are of no avail. If the patient has had several attacks before and the tissues are hard and firm a stiff catheter can be used with much less danger.

If the bladder cannot be entered by a catheter used in the manner recommended and if the applications have proved ineffectual, the bladder should be aspirated just above the pubis after making a short incision in the skin. This, of course, should be done aseptically. It is not necessary to have a complicated apparatus, such as Potain's aspirator which frequently gets out of order. An ordinary aspirating needle is the only essential, and every doctor should carry this with him. The necessary suction can be made by slipping a small piece of rubber tubing over the large end of the aspirating needle, and connecting this with one end of an ordinary Davidson

syringe; or a simple glass syringe such as used in injections for gonorrhœa may be used to draw off the urine, connecting it with the aspirating needle by a piece of rubber tubing. While practicing in the country I have used this procedure with considerable satisfaction. The apparatus is exceedingly simple and inexpensive. Aspiration may be repeated every day for two or three days if necessary. An internal urinary antiseptic, as salol or urotropin, should always be given. If after this time it is still impossible to get a catheter into the bladder, the patient should be operated upon. The character of operation depends upon his condition. As a rule it is safer to do a simple suprapubic cystotomy for drainage, and follow this in a few days, when the patient's condition is better, by a radical operation. Sometimes, however, a prostatectomy done through the perineum may be justified by the good general condition of the patient.

The next point is how to treat such a patient if you have been successful in overcoming the acute condition by means of the catheter. This depends entirely upon the subsequent course. If in spite of your care the bladder has become infected, as will occasionally happen, or if such attacks recur, or if the patient is considerably annoyed by having to get up to urinate at night he should be submitted to operation. Practically none of these cases have normal urine, and a small amount of casts or some albumen is no contraindication to operation. The patient's age, too, should not debar him from the benefits to be obtained from prostatectomy. On the other hand, the mere fact that a patient has an enlarged prostate is of itself not sufficient indication for operation unless accompanied by frequent urination at night, by attacks of acute retention, by infection, or by a large amount of residual urine. In this latter condition decomposition of the urine and infection almost always occur sooner or later.

Such semi-radical methods as incision of the prostate by cautery, recommended by Bottini, have fortunately fallen into disuse. It has been found that a prostatectomy done by some one who has had experience along this line and through the perineal route is accompanied by a surprisingly low rate of mortality. The method that I use is the inverted V incision, as recommended by Senn, Young, and others. A careful blunt dissection on each side of the median line is carried down to the prostate itself. Then the recto-urethralis muscle, which is attached to the urethra along the middle line, is cut, first inserting the index and middle fingers on each side of it and pressing down to keep the rectum out of the way. All bleeding points should be clamped or tied. This is exceedingly important. The membranous urethra is then opened on the sound and the finger inserted into the bladder for the purpose of exploration. If desired, the prostatic tractor can be now inserted into the bladder after withdrawing the finger, or the finger in the bladder may be used as a tractor. The prostate in its capsule is pulled down into the wound and the capsule incised. The lobes are then dissected out with the finger and scissors. After doing a few of these operations it is comparatively easy. The most important point is to learn the line of cleavage between the prostate and its capsule, and this can only be done by actual experience in the operation, or by watching very closely some one else. After the gland has been removed, the capsule is packed with gauze and a large drainage tube inserted into the bladder. The tube and packing is removed in three or four days when the patient is allowed to get out of bed. No sounds are passed.

I have done in all twelve operations according to this method. Only one resulted fatally, and this was not due directly to the operation. In this case the patient had a suprapubic fistula for more than two years. It was impossible to determine the exact condition of his kidneys, because the urine was constantly running from the fistula. The perineal operation, as above described, was done. The recovery was satisfactory until about two weeks after the operation, when he developed symptoms of uremia and died a week later. The postmortem examination showed the wound in excellent condition, but one kidney was practically converted into a pus sac and the other was seriously affected. The condition of the kidneys was evidently a chronic one, and had existed before the operation was performed. If this death be not attributed to the operation we would have twelve cases, which embraces all the prostatectomies that I have done, without mortality. However, as the patient died before leaving the hospital it would probably be fairer to place this as an operative mortality. Several of these patients were upwards of seventy years old. Practically all of them made satisfactory immediate recoveries from the operation. There was only one small rectal fistula, which was easily closed later. The question of an anesthetic should be seriously considered. In the latter part of this series I have done the operation in fifteen to twenty minutes. In such cases the small amount of anesthetic necessary does not seem as injurious as would be the attempt to remove this gland by local anesthesia, which is painful because of the large amount of tis-

sue necessary to cocainize.

Two of these cases (1 and 2) have already been reported in the Old Diminion Journal, October, 1903.

Case 1.—Mr. A. C. L., age 58, operated July 27, 1903; recovered.

Case 2.—Mr. G. T. F., age 64, operated August 4, 1903; recovered.

Case 3.—Mr. B., age about 56, operated May, 1904; died three weeks after operation from uremia. This patient is the one referred to above, and his death was not due directly to the operation.

Case 4.—Mr. C., age 57, operated April 12, 1905; recovered.

Case 5.—I. E., (colored), age 59, operated July 15, 1905; recovered.

Case 6.—Mr. P., age 76, operated May 15, 1906; recovered.

Case 7.—Mr. B., age 59, operated December 3, 1906; recovered.

Case 8.—Mr. A., age 62, operated May 3, 1907; recovered. Patient had closure of anterior urethra which was overcome by passage of sounds. A small perineal fistula persisted for a long time.

Case 9.—Mr. E., age 65, operated June 20, 1907; recovered. This was the only case where a urethro-rectal fistula developed after operation. The fistula was small and was cured by reopening the perineal wound, and suturing the defects in the urethra and in the rectum separately.

Case 10.—Mr. G., age 67, operated September 6, 1907; recovered. Examination before operation disclosed a very hard and rather small prostate, which produced decided obstruction. It was only about once and a half larger than the normal prostate. Cancer was suspected and microscopical examination later showed the suspicion to be correct. He recovered from the operation and was in comparatively good health for a few months, but about six months after the operation he died after an illness of only a few days, with symptoms indicating pulmonary metastases and with much albumen in his urine.

Case 11.—Mr. R. J., age 72, operated July 13, 1905; recovered.

Case 12.—Mr. McG., age 68, operated May 23, 1907; recovered.

Something of the Present Status of Cancer of the Uterus.*

By Dr. J. H. Marsh, Fayetteville, N. C.

A discussion of this subject which has received so much attention from the profession within the last few years seems only justifiable because of the increase of the occurrence of this dreadful disease in all classes of society, among all races of civilized people.

While the cause of cancer is unknown at the present time, it seems to behave like certain diseases which depend for their origin on certain pathogenic organisms. Its existence in early functional life is a great rariety; while in the later years preceding, during, and after the menopause, when the functional life is fading it is very common. It is generally conceded that cancer of the uterus, whether of body or cervix, is essentially a local disease in the beginning. It is indeed lamentable that about eighty per cent. of the cases seen by the gynecologist exhibit a condition no longer that of a new growth confined to the organ. Like the history of cancer in other structures the disease soon loses its local character and passes to surrounding and remote structures through the lymph and blood channels. Vunerability of tissue seems to act as a strong causative factor. This is demonstrated by the almost constant invariability of its occurring in the uterus that has been rendered vunerable by traumatism, inflammation, and other causes. That heredity is an influential cause is pretty generally admitted. A large per cent. of the cases seen give the history of cancer in one or more of the preceding generations.

Is cancer contagious?

A. Lapthorn Smith, after presenting statistics to show the wonderful increase in the frequency of cancer, offers many instances to show that it is conveyed from one person to another by means of a parasite called cancriamoeba macroglossa. He claims cancer has increased all over the world thirty per cent. in the last decade. He cites three instances of the disease conveyed from the genital organs of women to those of men.

Sherill reports a collection of 43 cases of this kind. Many other cases of the transference of cancer from lip to lip, tongue to gum, and cervix to vagina are reported. Deyen claimed the micrococcus neoformans was the agent essential to the production of cancer. The special commission sent from London to Paris failed to confirm bacteriologically or therapeutically Deyens claims for his discovery. Beards' Lectures on comparative embryology of the University of Edinburgh says that the cancer cell differs from all other cells solely in the characteristic that it is a latent and aberrant germ cell, unmodified as it should have been in the ordinary course of the development of the embryo. He says the substance that should have destroyed it at about the sixth week of embryonal life is the pancreatic juice from which trypsin and amylopsin are extracted. Gaylord, a few years ago,

*Read before the recent meeting of the Tri-State Medical Association at Charlotte, N. C.

discovered the coccidium sarcolatum from which much was expected; since that time its intimate relation with cancer has been confirmed and denied by various biologists. Inasmuch as the cause of this, the greatest scourge of womenkind, is still in obscurity the profession is generally agreed that cancer in its early stage is a local disease, but later through the blood and lymph channels spreads to contiguous and remote parts of the body.

Kelly classifies three varieties of cancer found in the uterus, each one depending on the special form of epithelium involved informing the new growth, namely, the squamous variety of carcinoma from the squamous epithelium of the vaginal portion of the cervix; adeno-carcinoma, which arises from the cylindrical epithelium of the cervical canal; and the adeno-carcinoma of the body of the uterus which arises from the cylindrical epithelium of the uterine mucous membrane and its glands.

In the present state of our knowledge of cancer of the uterus, and in view of the vast amount of work done with X-ray, radium and other agents, with more or less benefit in different stages of the disease, it must be admitted that our chief reliance is in early and complete surgical operation; and until our knowledge has advanced to a definite science in this disease I know of no better rule to govern us in practice than that advocated by Dr. Montgomery, of Philadelphia, when he summarizes the answer to a paper read by him at the last meeting of the American Medical Association on "How can we lessen the mortality of uterine cancer."

First. The employment of all measures at confinement and subsequently to secure a healthy condition of the pelvic organs.

Second. The employment of constitutional measures to prevent the formation of gastro-intestinal toxins and to obviate their baneful influence on the tissues of the body.

Third. An early study of pelvic symptoms in order to insure the early recognition of malignant disease.

Fourth. The resort to early operation for the removal of the organ involved and all the circum-jacent tissue that regard for the safety of important structures such as the uterus, bladder, and large pelvic vessels will permit.

Tic Douloureux: A Plea for the Proper Medical Treatment before Surgical Intervention.‡

By Beverley R. Tucker, M. D., Instructor in Nervous and Mental Diseases, Medical College of Virginia.

The name tic doulouteux is applied to neuralgia or inflammation of the fifth or trigeminal nerve when the pain becomes so severe as to cause facial spasm. Tic doulloureux may become the most serious of all varieties of neuralgia, and the condition may go on to a true neuritis. The pain is described as shooting, boring, burning, aching, tearing or sharp, and usually begins periodically with complete intermissions. The attacks come closer and closer together with greater severity till the pain is constant with frequent exacerbations. Once the condition is manifested a neuralgic habit tends to be established.

Weather rarely influences the pain, though the patient may wrap up the head to keep the draught from striking the face, as it may increase the pain, so, also, may chewing, or movements of the face muscles as in laughing. The pain may involve any or all of the branches of the nerve, and herpes may occasionally appear. The disease may last for years and the severity be so great that the patient would sincerely rather be dead than alive.

The cause of tic douloureux is usually systemic, secondary to some disease. Malaria is the most frequent cause and the name "brow-ague" is popular in malarial districts for neuralgia of the ophthalmic branch. Rheumatism is the remote cause in many cases, and in these the skin over the painful area is said to be hyperesthetic. In some cases gout is a cause and in some anemia. Neither syphilis nor alcohol appear to have causative relation. Exposure to cold can only be classed as an exciting factor. Decayed teeth have probably but little to do with the condition and many sufferers have sacrificed both good and bad teeth with no resulting benefit. The disease occurs in both sexes and is only seen in adult life. An hereditary tendency has been noted. Auto-intoxication, whether through the alimentary or genito-urinary tract, may be a cause. Errors of refraction are at times reflex etiological factors.

The object of this paper is to plead for thorough and proper medical treatment before surgical intervention, whether the peripheral or ganglion operation is contemplated, and not to offer a substitute for operative procedure when all else has failed.

It is well to remember in this discussion

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that the fifth nerve has a most extensive sensory distribution, making its exit from the skull by three separate foramanæ. It supplies, besides the skin of nearly the whole face and forehead and most of the ear, the mucous membrane of the eye, nose, and mouth, and also sensation to the eye-ball, the teeth, the tonsils, the naso-pharynx and salivary glands, and in addition many taste fibres. (1) and (2).

Gowers call attention to the important fact that the lining of the frontal sinus is supplied with sensation by the 5th nerve. (3). Although he does not mention it, I think the lining of the antrum of Highmore gets its supply from the same source. Referred pain may be felt in either of these sinuses, at times, after eating ice cream. We might differentiate neuralgia from infection of these sinuses, besides noting the usual signs of local pus formation, by remembering frontal sinusities is often bilateral and that antrum disease is secondary to disease of the teeth or nasal mucous membrane. In neuralgia pain would hardly be limited to the area over these spaces and painful points can also be found where the nerve makes its exit from the bone.

Operative procedures may be divided into two classes, those in which the nerve is cut after its exit from the skull, and those in which the skull is opened and part of the Gasserian ganglion removed or the sensory roots cut. The modus operandi of these operations it is unnecessary for me to discuss. In neither class have operations on the whole been eminently satisfactory. In the former, results have not always been permanent and sometimes as many as four operations have been performed upon the same patient, and in the latter, the danger to life is great and extensive anesthesia is substituted for pain.

The Gasserian ganglion operation was introduced by Rose in 1888 and later modified by Sir Victor Horsley and others, especially Cushing. The operation proposed by Spiller and Frazier of division of the sensory root above the ganglion may be less dangerous to life but has the same disadvantages in destruction of function.

Turk collected 201 operations on the Gasserian ganglion showing a mortality of 17 per cent. Of the recoveries 93 per cent. were considered cured, leaving 7 per cent. in which the result was not satisfactory (4). This makes about 24 per cent. of the operations direct failures and, in fact, no operation is a true success, for even when the pain is permanently relieved the discomfort and danger of the resulting anesthesia is considerable. Reviewing the function and distribution of the fifth nerve we may readily see why some of the following results of the operation may and do occur: Insensitive areas on the skin and mucous membrane render trauma and infection liable. Conjunctivitis and other eye injuries occur and even loss of an eye has been known. Lessened saliva and partial loss of sense of taste cause poorer mastication and digestion of food. Anesthesia and dryness of the nasal mucous membrane is another disadvantage. From trophic disturbance the gums may ulcerate and the teeth may loosen and come out. Thus we see that both the alimentary and respiratory tracts are laid more open to irritation and infection. As the nerve also has sensory fibres for the facial muscles awkwardness and even apparent weakness occurs, (5).

Remembering the danger to life and the inevitable unfortunate result of the absent sensation, it is certainly only justice to our patient to delay Gasserian ganglion operation until all remedial methods have been exhausted. This, in the writer's opinion, should be done even if the patient insists upon an immediate operation. When operation becomes the only means of relief the peripheral operation should first be done and the serious one of opening the skull be reserved as long as possible. Of the peripheral operations, twisting out the nerve and putting in a screw at its exit is probably the best. This leads us to medical consideration.

A statement by the patient and others that every drug has been tried and numerous physicians consulted, should not mislead you.

The chief remedies that are usually relied upon to relieve violent pain are morphine, coal tar preparations or cocaine. These in any given case have in all probability been tried. I make bold to say that not one of these is indicated in tic douloureux, because they have not proved effective and because they are injurious in their results if continued for any great length of time.

It is quite insufficient, as far as treatment is concerned, to simply make the diagnosis of tic douloureux which is so easy that "he who runs may read," but the true cause must be diagnosed in each individual case and treatment applied directly to the condition which underlies the pain. This requires time, patience, laboratory and other tests, a complete history and a careful study of each case.

The blood should be examined and if plasmodium, or changes indicative of chronic malaria are found, these with the history of past malaria or residence in a malarious district leads us to a diagnosis of this condition and the chief drugs used to combat our tic douloureux become quinine and arsenic. If anemia is found iron and arse-

nic must be pushed.

The urine should be examined, and, if in conjunction with our physical examination and history we deduce rheumatism or gout, then the salicylates take the leading place in our treatment. If diabetes or nephritis is shown to exist then these conditions must receive our energetic attention.

Auto-intoxication should be corrected and a gastric analysis or fecal examination may become necessary, and it is in these cases particularly that we see the good result of such drugs as castor oil and mercury. A careful intraocular examination should be made by a competent oculist, and I have known of a correction of refraction to produce a marked benefit. The sinuses, throat, nose, ears and teeth should be examined by a specialist if there is the slightest indication of trouble.

We must be resourceful and leave no stone untu ned until we find the causative factor if werhope to combat the pain.

Having diagnosed our case and logically chosen our course of treatment, the drugs must be pushed to the limit of tolerance and kept up over a period of weeks, or it may be months. As a preparatory method to purposeful treatment the bowels should be rhoroughly opened with calomel or castor oil and the patient should be put to bed and upon a nourishing diet, forcing milk and avoiding excess of sweets and acids.

A word as to the administration of some of these drugs to get the best effect. Quinine is best given in solution and not in pills, most patients can take from twenty to thirty grains daily, without disagreeable effects, for a considerable time. Of the salicylates, I prefer the sodium salt and give it in combination with sodium bicarbonate after meals, and in quantities from twenty to sixty grains a day. Fowler's solution is an excellent arsenic preparation and should be given until the physiological effect is noted. Castor oil can be given in doses from one-half to one ounce daily for several weeks. Purging ceases after the first few doses.

As adjuvants to treatment some of the following are useful in lessening the pain: Strychnine as recommended by Danna, beginning with one-thirtieth of a grain under the skin and increasing gradually to one-fifth of a grain daily; cannabis indica, ten drops of the tincture three times daily and increasing to thirty drops: or fluid extract of gelseminum on the ascending scale from three to twelve drops. Painting the skin and mucous membrane with a weak solution of iodine or the application of a hot salt bag are good external aids.

Strapping the face to prevent movement and nasal feeding may become necessary.

Although the cases now to be reported are only four in number, I feel justified in bringing them to your attention as a preliminary report, because of the uncertainty and gravity of the surgical methods of relief, and because by ascertaining the underlying cause and directing the treatment to it these patients have been relieved for periods of time long enough to lead me to hope that this relief will continue. I do not intend in any way to discredit surgery and not even the Gasserian ganglion operation in competent hands, but advocate operation if medical methods as above indicated have been thoroughly tried and have failed.

These four cases were all true tic douloureux which wished operation and were referred to me by Dr. George Ben Johnston for preliminary treatment, with the understanding that if this failed they were to be operated upon. The pain in these cases was so severe that it looked as if surgical intervention was the only thing that promised hope of relief.

Case No. 1.—H. B., an old negro preacher came to Richmond for operation, having been a long and intense sufferer from tic douloureux. He was unable to preach because of pain and even in conversation he was frequently interrupted by an excruciating facial spasm, and his suffering was extreme upon an attempt to examine his face. Chronic malaria was diagnosed with the probability of some rheumatism and he was put to bed at the Memorial Hospital and given quinine and sodium salicylate in large doses which was continued the two weeks he was in the hospital. He was relieved of pain in a few days. When he left he was directed to take fluid extract of gelseminum to control pain if it occurred. Recently, about fifteen months after treatment, Dr. Johnston kindly wrote to the old man's physician, Dr. McPhail, Charlotte county, Virginia, who replied that "the patient was the greatest sufferer he ever saw before he came to Richmond, but returned greatly benefited, and was very grateful." He had a few relapses which were controlled by fluid extract of gelseminum on the ascending scale from four to twelve drops.

Case No. 2.—The physician of Mrs. R. wrote to Dr. Johnston about her being operated upon for tic douloureux. Quinine was suggested as she, like the man in case 1, lived in a malarial district. Six months later her physician, Dr. C. H. Peete, of Warrenton, N. C., writes "when she had her bad attack of trigeminal neuralgia she took morphia and various salicylic compounds with no relief; twenty to thirty grains of quinine per day in three days took away the sharp paroxysms and since she

has only had a general aching condition, caused, I am of the opinion, by her neurasthenia. She did have a bad neuralgia and quinine did relieve her."

Case No. 3.—Mrs. R., an aged lady of 88 years, had violent tic douloureux for four years, during which time she had never been free from pain for twenty-four hours at a time. Morphia in quantity failed to relieve her except for an hour or so. She came to the Memorial Hospital a pitiable sight with her head wrapped in a shawl and distressing spasms occurring every twenty or thirty minutes. Her condition elicited the greatest sympathy from all with whom she came in contact.

Operation would have been extremely dangerous not only because of her advanced age, but because she had arteriosclerosis to a most marked degree. Dr. Johnston asked me to see her and malaria was again diagnosed. Her enlarged finger joints made rheumatism apparent. Morphia was stopped and sodium salicylate and quinine were pushed to the limit of tolerance. She was at the hospital three or four weeks and for the last ten days or two weeks was free from pain. She was allowed to go home and five weeks afterward wrote me a grateful letter, and two months after a letter was received from her physician, Dr. William Gills, of Farmville, Va., saying "she certainly was benefited and has no pain to any great extent."

Case No. 4.—Mr. P., of North Carolina, had tic douloureux in the ophthalmic branch for several years and his pain was of the most severe type. He had taken capudine and acetanilid, until nearly poisoned, without benefit. His nerve had been operated upon once, but the pain soon returned as violent as ever. He was a worker in paint and had some symptoms of plumbism, but malaria was diagnosed as the chief cause of his pain. His eyes troubled him and he was refracted by Dr. John P. Davidson. He was first put upon quinine and sodium salicylate under which he improved and then quinine alone was given. Two months afterward Dr. Johnston received a letter from him stating that he was entirely well.

In conclusion, allow me to say that I have endeavored not to exaggerate any of these cases, and I hope that as time goes on I may continue to get good reports from them.

References:

1. Gray's Anatomy, 15th Edition, page 725.

2. Purves Stewart, Diagnosis of Nervous Disease, page 114.

3. Gowers, Diseases of the Nervous System, Vol. 2, page 106.

4. Putnam and Waterman, Reference Handbook of Med. Sciences, Vol. 6, p. 246.

5. Purves Stewart, Diagnosis of Nervous Diseases, page 118.

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Prolonged Retention of the Ovum After Abortion.

Garipuy (Presse Med.) calls attention to the rather frequent, partial, or total retention of the ovum after abortion. The complications that thus arise are hemorrhage and infection. Rarely the entire ovum is retained. The placenta may be retained by the uterus with remarkable tolerance, and the absence of general or local symptoms makes the diagnosis extremely difficult. The placenta may be eliminated in fragments at stool, without the knowledge of the patient. In case of entire retention of the ovum there are no transformations of the tissues. The ovum remains in the uterus for a variable time without any changes and without symptoms and is then expelled intact. When only the placenta is retained it may undergo changes that transform it into a placental polypus, with a proliferation of the connective tissue of the villosities and of their epithelial covering. The persistence of vitality of the adherent placenta is permitted; coagulation of the blood is prevented and circulation continues. There are almost no signs of retention, and it is often impossible to tell whether the abortion has taken place. The uterus acts as it does after a threatened abortion and closes itself on the incomplete ovum as if this were intact. The absence of hemorrhage is explained by the absence of separation of the placenta. If the woman has been examined and pregnancy diagnosed before the abortion, this is an aid to diagnosis; but if this has not taken place the difficulties are greater. There may be no bleeding, and not even a serous flow, or clots may be expelled. Pelvic pains may be absent. Only physical examination will aid us. Closure of the cervix may be normal. There may be a diminution in the size of the uterus, and examinations at intervals may be of service. Modifications of form of the uterus have some value. The consistence will be neither the peculiar softness of pregnancy, nor a normal hardness, but these differences are evident only to the skilled touch. Metritis and subinvolution complete the diagnosis, but in these conditions there is often tenderness of the uterus. Having satisfied oneself that pregnancy does not exist, it is allowable to dilate the cervix and remove whatever is found there.

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ANNOUNCEMENT.

We desire by this means to inform our patrons of the consolidation of the Charlotte Medical Journal and the Carolina Medical Journal. Both have for a number of years been published in Charlotte and both have enjoyed a liberal patronage throughout the South Atlantic States. A stock company has been formed which will conduct one Journal on an enlarged scale. With the April issue this new Journal appears, the name, *Charlotte Medical Journal*, being retained, the same business and editorial management that has carried on the work of publishing the latter will have charge of the new Journal.

The editor proposes that the same architectural features and general make-up that has characterized the old Charlotte Medical Journal shall not be changed materially. We hope therefore to give our advertisers and subscribers the benefits which must necessarily result from this enlarged sphere of influence.

NOTA BENE.

We wish to call the attention of our subscribers to a regulation recently made by the Post-Office Department at Washington.

It declares that all subscriptions to periodicals must be paid in advance; that all renewals must be subject to the same conditions; that only four months' grace will be permitted with monthly periodicals, and that if subscriptions or renewals are not paid within this time copies of the journal to such persons *will be denied transmission in the mails at second-class rates.*

The government has thus taken out of our hands the power to extend credit. There is no way to obviate this ruling. We would therefore request that our subscribers pay up promptly, thus saving us and themselves from embarrassment.

A reason which has been assigned for this ruling is found in the fact that a great many publishers of magazines and other lay periodicals send out enormous editions of their papers through the mails at the second-class rate of postage to those who cannot be classed as legitimate subscribers. Their motive in so doing is a desire to guarantee to their advertising patrons a large circulation. This practice causes an annual deficit in the Post-office Department, since the government is unable to transport matter of this kind at second-class rates save at a great loss. It is this deficit that the Department at Washington desires to avoid, hence the new regulations and restrictions.

THE CASE OF DR. KNOPF.

The press of the country has recently had but little to say regarding the case of Dr. S. A. Knopf, of New York, the misquotation of whose utterances before the National Congress on Tuberculosis, at Washington, last May, placed him in the unfortunately compromising position of seeming to advocate the administration of opiates to terminate the sufferings of the hopeless consumptive surely and quickly. A Philadelphia paper reporting the meeting of the above named society quoted Dr. Knopf as saying, "It is my practice and it is your sacred duty when you see a dying consumptive before you to give that sufferer morphine in plenty that the end may come quickly and painlessly."

Dr. Knopf vigorously denied through several medical journals having made this statement and demanded its retraction and correction by the paper publishing it. This being refused, we learn that Dr. Knopf has entered suit against the paper for damages amounting to $100,000. Prominent physicians from the whole country who attended the meeting at Washington, during the course of which the utterances are alleged to have been delivered, should gladly come to the assistance of Dr. Knopf and help to procure his vindication. We learn that several North Carolina doctors have recently made depositions to be used in the case.

According to Dr. Knapf and according to those who heard his address what he did say was as follows: "And when we are in the presence of a dying consumptive who is suffering, I believe it our sacred duty to give him morphine to relieve his pain and make him comfortable and let him die easy."

ANOTHER VICTIM OF THE OCTOPUS.

With the December, 1907, number the Columbus Medical Journal closed its thirty-first volume and as a distinctly valuable medical periodical ceased to exist. Dr. J. J. Barnhill, for fifteen years connected with this journal in an editorial capacity, has retired and will devote his energies to other lines of work. This is to be regretted, for Dr. Barnhill has for many years been a conspicuous figure in the realm of medical journalism. Under his editorship the Columbus Medical Journal has always been ethical, scientific, and helpful, and it is only just to him that we take this opportunity to express our sorrow at his retirement.

In the January, 1908, number it is learned that the name of the journal is continued

unchanged, but instead of its being "A Monthly Magazine of Medicine and Surgery" the words following the title give the information that the Columbus Medical Journal is "For the Home," intended not for the physician but for the laity. Its character has, therefore, been completely changed as has its editor. Dr. C. S. Carr is now in charge of the editorial chair, and from the announcements emanating from his facile pen one would be forced to conclude that the Columbus Medical Journal can no longer be classed as one of the ethical and scientific periodicals of this country.

Now we may fairly ask the question: why has this change been necessary? The answer is given as follows: "The great organization of the American Medical Association, with its regularly authorized organs, has not only made it difficult for many medical journals to exist, but has made it practically impossible for others." These lines are quoted from the "Foreword from the Publisher" given in the January issue of the Columbus Medical Journal. Succinctly and briefly that is the whole situation in a nutshell: the result of the acknowledged policy of the *Octopus*, as Brother Daniel of the Texas "Red Back" has been pleased to term the national organization, to squeeze out the independent journals and to force upon the profession a medical journalism whose very life blood is crushed out, a press which possesses no independence of thought and which in no way represents the great mass of the medical fraternity. Years ago when the American Medical Association, during the period of its reorganization, was a toddling infant unable to stand alone, voiceless and helpless, it was largely with the help of the independent medical press of the country that this association took its first uncertain tottering steps. Independent journals lent their aid and by their widespread advocacy of medical organization nursed the foster child until it became a healthy, growing youth. By and by we see the American Medical Association grown to proportions embracing the whole of the United States with a weekly medical journal which is sent to every member of the association upon the payment of his annual society dues. No longer does this ungrateful child require the kindly care of its foster mother; having no further use for independent medical journals it turns upon and seeks to devour them, destroy them, force them out of existence.

No society journal can be untrammelled and in the highest degree helpful in the same sense that independent journals are, for the reason that editors of the former hold their office by virtue of their ability to conciliate, to please the faction which may happen to be in power. Censorship of the press permits the publication of matter—good, bad, or indifferent—which happens not to conflict with the views of the "powers that be." Society journals do not correctly represent the whole medical profession, but rather a faction or clique which holds the reins.

However, while we believe that we have enumerated some of the grave faults of organization journals, what we wished to do was to point out some of the reasons why independent journals find it increasingly difficult to exist. When a physician becomes a member of the American Medical Association he pays his Annual Dues amounting to five dollars. He then becomes a subscriber, without additional expense, to the Journal of the American Medical Association which comes to him every week. He may also be a member of a State Society which likewise has its own journal. As a member therefore of his State Society, he is also a subscriber to a second journal which may come to him weekly, or, it may be, monthly. Again, in a few instances, county Societies possess official organs to which members become subscribers by virtue of having joined the Society and paid up their dues. Thus the physician gets regularly several journals and the vast majority of doctors could not find time to read more. He finds the Society journals are quite as much as he can find time to "look over."

The avowed purpose of the American Medical Association's policy is to so perfect the organization of the whole country that upon joining the county Society the initiate at the same time automatically becomes a member both of his State and of the National Associations. Payment of the fees of each of these organizations also puts him on the list of subscribers to the several journals of the respective societies. It is also the purpose of the *Octopus*, if this plan of organization succeeds, to have at least every State Society establish its official periodical. As this plan is successfully carried out the independent journals find their subscribers falling off not because they are finding their organization journals better, but because they cannot afford and cannot find time to read so many. He simply has no choice; he must become a subscriber when he becomes a member of the organization.

Now we have no quarrel with organization, it has done more to uplift the medical profession than has any other thing in all time. But it is this system that we condemn. If the so-called Society journals were placed on the same footing with the so-called independent journals—allowing a member of the associations to subscribe or not as he might choose there would exist some ele-

ment of fairness in the competition.

Make the Society dues and the subscription to the official journal separate and distinct, allow the doctor the privilege of choosing his medical journal and both can live. Merit should be the test. The existence of an independent medical press is the only means by which a healthy balance can be preserved against the autocratic and bureaucratic tendencies of rampant organization, and whether this check is to be thrown off or preserved only the future can decide.

Dr. Wm. J. Robinson in a paper read before the American Medical Editors Association, speaking of this effort to crush out independent journals, says that if it should succeed "it would mean the greatest calamity that could befall the medical profession of America. Imagine you have a new method of treatment, a new discovery that you want to announce to the medical world. If that method or remedy does not appeal to the powers that be, you have absolutely no means of making yourself heard. Should you by chance get into one of the journals and should your statements not meet with the approval of the highest powers, a little squib is then written by one of the editors, and reprints of it are sent to all other journals for reproduction, so that the effect of your utterances may be quickly and effectually neutralized. And do you know, that if independent journalism were non-existent, any physician who dared to criticize or make himself obnoxious to the powers that be, would have a very hard and miserable life of it. He would be unable to have any of his articles, even of a purely scientific character, accepted by any journal; his books and other writings would be unfavorably commented upon or he would be killed by silence. This is not a mere phantasmagoria; I have simply filled in and completed the picture, an outline of which can be seen even now by those of strong discernment. That not a word of criticism of the management, that no expose of machine politics, etc., could ever be published, goes without saying. In short, we would have a medical bureaucracy, strong, irresponsible, unscrupulous and comparable only to the Russian bureaucracy before the advent of the Duma. Wouldn't that be the greatest calamity that could befall the medical profession?"

FOOD INSPECTOR FOR SOUTH CAROLINA

We learn that under the new act giving the South Carolina State Board of Health power to enforce the pure food laws the board has re-elected Dr. F. L. Parker, of Charleston, State analyst, whose duty it is also to inspect municipal water supplies. It is the intention of the board to have a number of foods now on the market inspected at once. Under the new act giving the board the appointment of a State health officer at a salary of $2,500 the board has decided to advertise three weeks for applicants for the place.

THE SCOURGE OF TUBERCULOSIS.

The recent publication by the United States Census Bureau, at Washington, of the mortality statistics for the year 1906 prove that the terrible scourge of tuberculosis unfailingly claims its thousands of victims, leading as it does all other diseases as a cause of death. The census reports show an average for the whole country of one hundred and forty-nine deaths from tuberculosis per one hundred thousand of population. It is rather astounding also to learn that Colorado and California show the highest death-rate from this cause; and yet when one considers that more consumptives probably seek the climate of these two States than any others it will not be difficult to understand the figures. The whole country, and foreign lands as well, dump their people infected with tuberculosis into California because of its balmy sunshiny weather, and into Colorado that they may breathe the cold rarefied atmosphere to be found there. Thousands go there to die and hence the great mortality given these States. Michigan and South Dakota show the lowest death-rate. The negro race, as is well known, suffers terribly from the ravages of tuberculosis. The statistics for 1906 show that the death-rate among negroes is more than sixty per cent. higher than among whites in the sections examined, being 28.1 per thousand. Reports from the larger cities show that it is here that the negro race is most affected. A recent writer, compiling statistics of New York, Chicago, Philadelphia and other great cities, shows that the death-rate of the colored race in these localities is far in excess of the birth-rate.

ARSENIC IN DRIED HOPS.

For several years considerable attention has been given in England to the question of the origin of the arsenic sometimes found in beer. Recently U. S. Department of Agriculture, Bureau of Plant Industry, took up the investigation of this subject and in Bulletin No. 121, Part IV, the work of W. W. Stockberger, Plant Expert, is reported. It seems quite likely that arsenic, if present in the soil, may be taken up by the hop plant under favorable conditions, although from this source the amount is less than 0.01 grain per pound. On the other hand the most frequent source of arsenic in hops is the impure sulphur used in the process of curing. Two processes of curing are em-

ployed: in the "direct" process the hops are dried over open fires and are thus exposed to all the combustion products arising therefrom; in the "indirect" process a current of pure heated air is made to pass through the hops, which do not come into direct contact with the gases or fumes from the fires. In the former method it is found that the use of the highest grades of pure sulphur is most effectual in reducing the percentage of arsenic found in the cured hops.

These investigations are of interest to American hop growers in view of the fact that countries to which hops are exported put a ban on those containing over 0.01 grain per pound.

TRANSACTIONS OF THE STATE MEDICAL SOCIETY.

It is with pleasure that we acknowledge receipt of the Transactions of the 1907 meeting of the North Carolina Medical Society, at Morehead City. We consider that Dr. Stanton, the able secretary, has produced a report of considerable excellence in spite of the difficulties he has experienced with stenographers.

In a word of explanation and apology prefacing the volume, he tells us that the stenographer hired to report the meeting failed utterly to do so or at least would never put his notes in writing. Consequently practically all the proceedings of the Morehead meeting have necessarily been omitted. This is extremely unfortunate and we regret with Dr. Stanton the position in which he has so unavoidably been placed. However, the volume contains the papers read before the Society, yet the absence of the discussions which always adds to the interest of these reports cannot but detract in great measure from their value. The proceedings of the House of Delegates were available and have been published in full. Also the report of the Board of Medical Examiners is somewhat abbreviated, but sufficiently full.

As we have already said while it is unfortunate that the transactions are no more complete no censure can be placed upon the secretary; he is simply the victim of circumstances.

ESCAPED LUNATICS RECAPTURED.

The escape from the Morganton Asylum of three dangerously insane patients early in March gave the authorities no little concern. It is an unfortunate occurrence, but one of those things which, in spite of the utmost vigilance, will sometimes happen. However the prompt and active measures on the part of the hospital authorities to apprehend these fugitives is highly commendable, although in spite of all efforts of pursuers they travelled over considerable distances before being caught. Two were captured near Asheville and one at Bessemer City.

A NEW HOSPITAL.

Winston-Salem will doubtless have, in the near future, a new and thoroughly up-to-date hospital. A movement started by the "King's Daughters" to erect a building to cost $40,000 or $50,000 has received the unanimous endorsement of the Medical Society of Forsyth county, and the Board of Aldermen of Winston has donated the site. It is said that the people are greatly interested in the efforts being made and that the hospital is assured.

ST. FRANCIS HOSPITAL.

Newport News, Va., is to have a fine new hospital which will be called the "St. Francis Hospital." The company which is capitalized at $50,000 has for its president, W. F. Cooper; vice-president, S. W. Hobson; secretary-treasurer, W. J. Knight.

DR. J. M. SADLER.

Dr. J. M. Sadler, one of the most prominent physicians of Montgomery, Alabama, died March 7, 1908, of apoplexy while attending a meeting of the Montgomery medical society, of which he was a member. Dr. Sadler was 60 years old and a native of South Carolina. After graduation in medicine he located in Arkansas. Later he went to Uniontown, Ala., where he remained until he removed to Montgomery 15 years ago.

DR. J. D. McMILLAN.

On March 4th, 1908, Dr. J. D. McMillan, one of Lumberton's most prominent physicians and citizens, died of cancer of the stomach in the James Walker Memorial Hospital, of Wilmington. The remains were interred at Lumberton. Dr. McMillan was a graduate of Jefferson Medical College, class 1876. Since that time he has been a member of the North Carolina State Medical Society. He was also a member of the Robeson county Medical Society. He is survived by a wife, son and one daughter. The entire town and county mourn the loss of Dr. McMillan.

DR. ROBERT H. HOLLIDAY.

We regret to chronicle the death of Dr. Robert H. Holliday, for many years a prominent physician of Sampson county, at his home in Clinton March 13, from complications following an attack of pneumonia. He was an Englishman by birth and came to America when a lad. A gallant Confederate soldier he was loyal throughout his life to the Confederate cause. Dr. Holliday was a graduate of Washington University, Maryland, class 1868. He was a member

of the Sampson county and North Carolina State Medical Societies. His age was 67 and he leaves a widow, three sons and one daughter.

The Board of Health of Augusta, Georgia, has issued one of the most attractively gotten up booklets containing its annual report we have yet seen. Augusta is said by an authority to be "one of the two best inspected cities in the country," and that it has "the most up-to-date Health officials and modern sanitary regulations." The report contains well selected cuts of various institutions, streets, parks, water works, &c., which may be seen in the city. Vital statistics occupy considerable space. The population estimated at 49,000, three-fifths white and two-fifths colored, showed a mortality, during the past, of 835, or 17.11 per 1000. The mortality among whites was 13.11 per 1000; among colored 22.98 per 1000, a decrease in the latter since 1900 from 36.68 per 1000.

The more dangerous infectious diseases which existed in Augusta were small-pox (138 cases), diphtheria (36 cases), tuberculosis (mortality: whites 1.32, colored 3.25 per 1000), pneumonia (101 deaths), typhoid fever (37 cases, 15 deaths), malarial fever (40 deaths).

Glyco-Heroin (Smith) has won the esteem of the medical profession because it possesses exceptional remedial properties and the scope of its utility is very wide. Martin H. Smith, Ph. G., is the author of a neat and attractive folder containing an exposition of its components, together with hints as to its value in the treatment of bronchitis, cough, cough of phthisis, laryngitis, pneumonia and allied disorders of the respiratory tract.

CULLEN ANDREWS BATTLE.

The death of Cullen Andrews Battle on March 22, 1908, removes one of the most prominent and wealthy manufacturing chemists of this country. Mr. Battle, a native of North Carolina, had attained most remarkable success, being especially known as the president of the firm of Battle & Company, of St. Louis, Mo. Born May 8, 1848, in Hertford county, North Carolina, the son of Rev. Dr. Amos J. and Margaret P. Battle, he received his education at Wilson Collegiate Institute, Wilson, N. C. He began life as a telegraph operator and studied law between the calls of the wire. Later he engaged in the drug business and became a manufacturing chemist. He had been in business in St. Louis since October, 1875. Twenty years ago he married Miss Ida Pugh, of Marysville, Ky.

Mr. Battle was preparing to leave for his farm and country home at North Port, Michigan, in expectation that his failing health would be benefited, when he was fatally stricken. On account of his ill health he was preparing to make the trip earlier this year, it being his custom to leave the city late in May. The physician pronounced internal hemorrhage, resulting from prolonged illness, the immediate cause of death.

EDW. J. KINLOCH, M. D.

Dr. Edward J. Kinloch died Jan. 31, '08, at his home in Charleston, S. C., aged 38 years. Dr. Kinloch had been in declining health for several years, having lived in California for a year with the hope of restoration. Dr. Kinloch attended the University of Virginia one year, after which he took special courses at Johns Hopkins. Graduating in 1892 from the Medical College of the State of South Carolina he begun practice in Charleston where he attained success and distinction.

CUBA QUARANTINED.

No chances are to be taken this year with yellow fever. The Marine Hospital service at Washington has announced that after April 1 a quarantine will be enforced against Cuba. It seems that this order has occasioned much astonishment and dissatisfaction in the island, as it is alleged that the last yellow fever patient was discharged from the hospital on February 28 and the last infection, that of an American soldier at Santa Clara, was reported on Feb. 21.

DR. HODGES, THE ORATOR.

Dr. J. Allison Hodges, of Richmond, Va., president of the Richmond Medical College, will deliver the baccalaureate address to the members of the graduating class of the city graded schools of Charlotte on the evening of Tuesday, May 19th. Dr. Hodges, whom the Journal takes particular pleasure in welcoming to Charlotte, is a native of this State and, aside from his reputation as a physician, is one of the most delightful speakers in the South.

NEW SANITARIUM.

Greensboro is to have another excellent institution in addition to the numerous ones already to be found there. A new sanitarium for the treatment of nervous diseases and drug habits will be established and opened for patients by June 1st, 1908. The Telfair Sanitarium at Asheville is owned and operated by the same corporation and it has prospered wonderfully. It is said that a fine modern building of thirty rooms, thoroughly up-to-date and equipped in the most approved manner, is to be erected in Greensboro in that portion of the city called

Glenwood Park. We are confident of the success of this new sanitarium.

CONSOLIDATION OF CALIFORNIA JOURNALS.

We have received information that the Los Angeles Journal of Eclectic Medicine and the California Medical Journal have been consolidated and that beginning with the April issue the two will be combined under the name of The California Eclectic Medical Journal. Both have been progressive and up-to-date in representing their School of Medical Science. The combination, assuring renewed life and force, will make the new monthly a powerful factor in medical journalism.

DRUG MANUFACTURER CONVICTED.

President Roosevelt is giving vent to his strenuosity along new lines when he urged the prosecution of Robt. N. Harper, the Washington druggist who has been indicted for violation of the Pure Food and Drug Law, and the imposition upon him of the full penalty of the law. It is reported by the lay press that Robt. N. Harper, banker and drug manufacturer, was convicted on the charge of the manufacture and sale of a pharmaceutical preparation or compound which was mislabelled. The compound in question contained antipyrine, acetanilid-caffeine, alcohol and other ingredients. Bearing upon the alleged poisonous character of this preparation, testimony was offered that if not guardedly taken an over, dose would be fatal. Harper admitted on the stand that he would not take the contents of an eight ounce bottle of this preparation because to do so would be dangerous, but a mass of expert testimony was given to show that if the directions of the medicine which was put up for headache remedy were observed the effects were harmless. Punishment is imprisonment for a term of six months or fine of $500 or both.

At first it was said that Harper would receive only the fine since it was his first offense. Thereupon the President took the matter up and let it be known that he was very anxious that the defendant should suffer the full penalty of the law.

This is only just. The law cannot be too strictly enforced upon those who foist upon the people and upon the profession preparations whose formulas are withheld or given in such indefinite terms that no one can tell just what they contain.

THE WHISKEY PRESCRIPTION BUSINESS

The lay press of the whole country has commented on the numerous whiskey prescriptions issued by Charlotte doctors during 1907; some of these remarks have been serious, some of them facetious. On the whole the report shows how great a responsibility is imposed upon physicians when the law makes them the sole purveyors, so-to-speak, of alcoholic spirits. Without attempting a discussion of the situation, or of the merits of prohibition, we shall simply recite a few of the statistics which have already appeared in Charlotte daily and weekly papers.

The total number of whiskey prescriptions issued by Charlotte doctors during the year 1907 was 43,192. The amount of whiskey sold on these prescriptions was 39,635 quarts and 474 dozen bottles of beer.

On the basis of $1.25 per quart the money expended for whiskey amounted to $49,-543.75. To this the amount expended for beer is added, making a total of $50,396.90.

Supposing the physician charged 50c. for each prescription the total revenue for the doctors would amount to $21,596. One physician wrote 4901 prescriptions for whiskey; another as old as he and one of the leading doctors wrote only 20. Thus we find examples of doctors who perhaps hold extreme views as to the efficacy of alcohol. Others have numbers varying from hundreds to thousands credited against their names. Already we have had something to say in these columns along similar lines. There is no remedy we can offer for present conditions. The public has no right to say the physician may or may not prescribe a certain drug in any condition for which he says it is indicated. That is encroaching upon a right which has enabled medicine to reach its present high state of development. Neither can one physician justly criticize a brother who chooses to prescribe whiskey. It is notorious that marked differences of opinion exist among doctors as to the effect of alcohol upon the systems of the body.

And while every one will confess that there are physicians who abuse the confidence and trust imposed upon them in these matters, who write prescriptions for whiskey when they know the patient does not need it, and who are in the business largely because it pays from a financial standpoint, still we have no right to put our finger upon this one or that one and accuse him of wrongdoing. It is simply and solely a question each doctor must meet and decide according to his own conscientious regard for what is right.

ALABAMA MEDICAL ASSOCIATION.

The Medical Association of the State of Alabama will hold its annual meeting in Montgomery, Ala., April 21-24, 1908. Dr. S. W. Welch is President, and Dr. J. N. Baker is Secretary.

THE PHYSICIANS AND SURGEONS OF THE CONFEDERATE ARMY AND NAVY.

But a very small number of those who served in the medical and surgical department of the Confederate army and navy still survive. Their association will meet during the reunion of Confederate Veterans in Birmingham, Ala., in June, 1908.

SOUTHERN RAILWAY SURGEONS.

The Association of the Surgeons of the Southern Railway Company will hold its annual meeting June 28-30, in Birmingham, Ala. The preliminary program, already issued, gives promise of some excellent papers.

LUMBERTON DOCTORS ORGANIZE.

The physicians of Lumberton, N. C., have formed a Medical Society which will meet weekly for the discussion of some subject proposed by a member. The following officers were elected: President, H. T. Pope, M. D.; Vice-president, N. A. Thompson, M. D.; Secretary and Treasurer, John Knox, M. D.

PHYSICIAN'S HOME BURNED.

We sympathize deeply with Dr. J. E. Cathell, of Tyro, Davidson county, who suffered the serious misfortune of having his residence destroyed by fire on March 24. According to accounts received the residence—an eight room house, all his instruments, accounts, medicines and furnishings were a total loss, the fire having occurred at night during the absence of the doctor and his family. The loss is said to be about $4000, with $2,250 insurance.

ATLANTA SANITORIUM INCREASES STAFF.

The Peidmont Sanitorium, of Atlanta, Ga., has recently largely increased its staff of physicians. The following doctors form a very strong faculty: Dr. Floyd W. McRae, general surgery and gynecology; Dr. Wm. Perrin Nicholson, general surgery; Dr. Michael Hoke, orthopedic surgery; Dr. L. Sage Hardin, rectal diseases; Dr. E. Bates Block, nervous diseases; Dr. L. Amster, gastro-intestinal diseases; Dr. Phinizy Calhoun, eye, ear, nose and throat; Dr. Marion McH. Hull, general medicine; Dr. James E. Paulin, pathologist; Dr. Annie L. Sawyer, obstetrics.

SUPREME COURT DECIDES AGAINST DOCTOR.

The South Carolina Supreme Court has handed down an opinion upholding the decision of the lesser court against Dr. R. E. Mathias who brought suit against the commissioners of Lexington county for fees alleged to be due him for vaccinations performed in that county. Dr. Mathias, as agent of the State Board of Health with the aid of an assistant, Dr. H. C. Eleazer, vaccinated several hundred persons in Lexington county and under the statutes he and Dr. Eleazer were paid 10 cents a vaccination by the Lexington county board of commissioners. Under the rule of the State Board of Health Dr. Mathias claimed that he was due 5 cents additional, and while the rule does so stipulate the Supreme Court sustains the county commissioners in their position that there is no warrant of law for paying the claim for this 5 cents additional.

DR. T. D. HAIGH.

With a pang of sorrow the Journal chronicles the passing of another of North Carolina's grand old physicians. The death of Dr. Thomas Devereaux Haigh at his home in Fayetteville March 23, 1908, removes one who, during his active years, was most prominent in the medical profession of his State. Born in 1828, he had spent his long life of eighty years in his native town. Dr. Haigh was a graduate of the University of New York, class 1851. Upon his graduation he began practice in Fayetteville where he soon become a commanding figure by reason of his great ability and force of character. In 1874, he joined the State Medical Society; in 1876, was made vice-president; and in 1888, he served as President of the Society. For years he was President of the Cumberland County Medical Society. Few men have left a stronger impress for good upon the communities in which their lives were spent. As a physician he was prominent in his profession; as a citizen he was a pattern for the younger men about him; as a friend he was constant, loyal and true. In the home circle his life was a benediction; as a Christian his example was in all respects meet for emulation.

Dr. Haigh had not been actively engaged in the practice of medicine for several years. Because of his advanced age and failing strength he had been forced to retire. He is survived by his wife and seven children.

TENTH DISTRICT MEDICAL SOCIETY.

The Tenth District Medical Society of the State of North Carolina will hold its third semi-annual meeting in the Council Chamber of the City Hall, Asheville, Friday, April the twenty-fourth. Sessions will be held at 3:00 and 8:00 p. m. Dr. L. B. McBrayer, the president, is making preparations for a large attendance. An excellent program is being arranged and nothing will be neglected which would contribute toward a successful meeting. Dr. McBrayer, who is also chairman of the Section on Practice for the next meeting of the North Carolina State Medical Society at Winston, June 16-18, is inviting those who will read a

paper before the Tenth District Society to present the same paper at the State Society. He is active, energetic and enthusiastic and if all the Chairmen of Sections are working as earnestly the meeting at Winston will be a great one.

At the regular annual meeting of the Autauga County (Ala.) Medical Society, held at Prattville, Ala., March 7, 1908, the following officers were elected for the ensuing year: President, Dr. J. E. Wilkinson, Sr.; Vice-President, Dr. J. W. Hagler; Secretary and Treasurer, Dr. J. E. Wilkinson, Jr.

Dr. Victor C. B. Means, a native North Carolinian, and for the past twenty-four years surgeon in the United States Navy, has, on account of disability, been retired from the service. He has been on sick leave in Philadelphia for the past year. Dr. Means was born in Concord, Cabarrus county.

Review of Southern Medical Literature

Atlanta Journal-Record of Medicine, Feb., 1908.

The Diagnosis of Kidney Diseases with Special Reference to the Significance of Slight Albuminuria.—Dr. E. Bellinger believes that casts have about the same significance as the renal albumen. There are many drugs that cause their appearance, especially the hyaline variety. Severe muscular exertions and over-indulgence in certain forms of food and alcoholics also produce them where there is no nephritis. Merely their presence in a single specimen of urine which has been allowed to stand and the upper portion decanted off and the lower part carefully centrifugated, cannot be taken in itself as evidence of Bright's disease—even if a few granular casts are found. When irritated, the non-nephritic kidney seems capable of producing them in larger numbers than can the diseased kidney—especially the interstitial nephritis in patients of advanced age (Emerson).

Conclusions.—In doubtful cases no positive opinion should be expressed until many specimens of urine have been examined, for it is the persistence of renal albumen and casts that is of more serious import than is their occasional presence in considerably larger quantities. The 24-hour specimen should be measured and a comparison made between the amount ordinarily passed, and when an excess of water is being taken. The specific gravity is of much importance if the amount of fluids ingested is considered. In addition the condition of the heart, blood vessels, arterial tension, diet, intestinal canal, habits and past history should receive due attention.

Many patients with orthostatic albuminuria of renal origin will go for years without any evidence of nephritis but our prognosis must not be made from the urine alone but from the entire picture. Prudence demands that we be conservative and yet not to be too pessimistic and give patients unnecessary alarm about conditions that may not be dangerous. Success in discriminating between the insignificant forms of albuminuria and those indicating renal disease, depends more upon eliminating nucleo-albumin and extra renal albumin and albumose than in any further refinement in our chemical examinations. It is important that we discard dogmatic statements and preconceived ideas that albuminuria necessarily means Bright's disease and at the same time it is of as much consequence that we be not too positive in our assertions that orthostatic or the so-called physiological albuminuria is always harmless.

The Southern Clinic, February, 1908.

Pneumonia.—Dr. C. D. Martinette says that the treatment of pneumonia must necessarily be symptomatic, for at present no specific remedy is known for this disease. A considerable number of cases taken early enough in the first or second day can have their course, if not always aborted, at least appreciably shortened by proper attention. As a routine procedure, it is very necessary to administer one or two grains of calomel in small doses—say one-sixth of a grain every half hour, followed after a short interval by a saline to assist in clearing out the bowel satisfactorily. To control the pulse and temperature small, often repeated doses of aconitine and digitalin, 1-134 grain of the first, and 1-67 grain of the second, are given every half hour until pulse falls to 80, then every hour. If the tinctures of aconite and digitalis are to be used, ten minims of each may be given at the same intervals. The entire thorax should be heavily covered with a layer of cotton. The intense pain may be controlled by a hypodermic of 1-8 grain of morphine and, locally applied, tincture of iodine sometimes gives relief. Very severe headaches may call for an ice bag or ice cold compresses. If the patient is much enfeebled small doses of strychnine may be given. Small quantities of alcohol may be given to some patients with great benefit. This is almost imperative with alcoholics. Contrary to what is often asserted the writer has usually found the cough in pneumonia distressing enough to require attention. Small doses of heroin

are of some help. Codeine may also be given. Vomiting sometimes is very severe and can often be stopped with cracked ice. Feeding by rectum for a few days proves effective in bad cases and any preparation of opium may be discontinued temporarily on account of the nauseating action of opium on some patients. As to the general management a patient suffering from pneumonia should be kept in bed, preferably in a recumbent position, throughout the attack. A bright, airy room should be selected, if possible, and plenty of fresh air let in both day and night. Cold water, besides allaying the thirst if easily retained by the stomach, can very advantageously be given. The diet at first should be entirely liquid, consisting of milk, broths, clam-bullion or oatmeal gruels. Feedings should be frequent, but care should be taken that the stomach should not be over-taxed. The bowels should be kept open by means of frequent doses of citrate of magnesia or of some bland saline.

The Louisville Monthly Journal of Medicine and Surgery, February, 1908.

The Practical Management of Lesions of the Bile Passages.—Dr. H. H. Grant presents the following conclusions as indications for guidance in suspected lesions of the biliary passages: First. Where the symptoms are mild consisting of a protracted dyspepsia, more or less severe, with occasional pains shooting up into the shoulder, a general loss of vitality, coupled with a persistent tenderness in the gall bladder region, after a reasonably patient medical treatment, the time for exploratory incision has arrived.

Second. The presence of repeated attacks of pain, due to evident sub-acute inflammation in this region, the presence of a tumor more or less constant of any appreciable size whatever; the existence of recurrent or possibly persistent jaundice, with or without clay-colored stools; attacks, one or more of acute inflammation, with fever and pain; the history of the so-called biliary colic attacks; an assembling of two or three of these symptoms, coupled with a persistent tenderness in the region of the gall bladder, probably reinforced by Moynihan's sign of tenderness posteriorly over the shoulder blade, constitute an absolute indication for exploratory surgery with the prospect of almost certain relief.

Treatment.—Whatever else is in view in the operative treatment of disease either of the gall bladder itself or of the ducts, drainage must have the first consideration in the great majority of cases In the authors experience the simplest and the safest of all steps in this work has been employed in all cases except malignancy or stone impacted in the common duct. The author does not dispute at all the propriety of cholecystectomy for badly diseased gall bladder, even not cancerous, but he is quite sure proper drainage will lead to the absorption of thickened mucosa and restoration of the viscus to a serviceable and healthy state in the great majority of cases. The operative steps in extirpation are attended with higher mortality per se than drainage, and if done when obstruction in the common duct has been overlooked disaster will likely follow. Stones in the common duct which can be pushed into the gall bladder can be thus safely dealt with. If not, after removal by direct incision of the duct drainage through a tube in the duct brought out at the lower angle of the wound or through a stab wound is to be employed.

The American Practitioner and News, Feb. 1908.

Anaesthesia, General and Local.—Dr. C. E. Montgomery quotes the following conclusions based on a report of 2,500 cases operated on with general anaesthesia by Armstrong, of Montreal General Hospital: 1. Cooling of the body surface contributes largely to the lung complications. 2. The existence of septic foci, particularly in the abdomen, ts a common cause, for when the abdominal muscles are painful they do not aid in expelling mucous that collects in the bronchial tubes, and the transmission of septic emboli from the abdomen to the lung is easy. 3. Aspiration of vomitus and accumulation of blood and mucous in the air passages in unconscious cases is a very common cause. 4. The larger percentage of cases occurred in the right lung, because the right bronchial tube is larger and allows more ready aspiration. 5. Patients should have stomach lavage when food is present, and the mouth and pharynx should be cleansed well before and after anaesthesia, and especially when the patient is unconscious. 6. Septic peritonitis cases develop lung complications more frequently than any others. 7 Common predisposing causes are weakened heart with hypostatic congestion, age, alcoholism, cachexia and sepsis. In the preparation of the patient these points should be kept in mind, since neglect of any of them may cause disagreeable symptoms following the anaesthetic. The relations of the attendance to the anaesthetized patient should be just as asthetic as when the patient is awake, and careless lifting and moving of the limbs, uncomfortable strained position and the barbarous use of the mouth gag and tongue forceps for some fleeting disturbance of respiration should

never be allowed. If the cause is sought the disturbance can be avoided without injuring the patient's mouth and tongue. Oftentimes by simply turning the patient's head to one side, or pushing the lower jaw well forward, the disturbance for which the tongue forceps are so often used will be avoided. Thirst after anaesthesia can be almost entirely prevented by colonic injections of warm saline, one half to one pint, every hour or two, beginning as soon as the patient is removed from the operating table. This does not cause nausea, nor is it often contraindicated by the nature of the operation and is of inestimable value in protecting the kidneys from the concentrated irritant.

New Orleans Medical and Surgical Journal February, 1908.

Acute Dilitation of the Stomach as a Post-Operative Complication.—Dr. C. J. Miller says that the recognition of acute dilitation of the stomach should not be difficult. There are three constant and striking symptoms, vomiting, pain, and abdominal distension. The first of importance is vomiting. It appears to be the first symptom, and usually continues throughout the attack, increasing in severity as the case progresses. The most noticeable feature of the vomiting is the large quantity of fluid ejected. Several quarts may be vomited in a few hours. It is usually thin, oftenest of greenish color, but may be brown and may contain some blood. Conner mentions as a feature of great diagnostic importance, that the vomitus may be foul smelling but rarely feculent. There is a large quantity of bile in the vomitus when the stenosis is below the ampulla. Distention is nearly always present; splashing sounds are quite frequently heard; thirst is intense in most cases; and the urine is greatly diminished in amount. Visible peristaltic waves are not often present, obstinate constipation is the rule, and the temperature is almost always normal or subnormal. Rapid collapse is a striking feature and may account for some of the mistakes in diagnosis. If there is any doubt as to the condition, the introduction of a stomach tube will usually confirm the diagnosis. A quantity of gas may escape but usually large amount of fluid containing bile and pancreatic juice will be syphoned off. An abundance of fluid without fecal matter denotes duodenal obstruction. Halstead states that the abdomen becomes distended, but dull on percussion instead of being tympanitic, as in ileus, either from inflammation or from paralysis of the intestine without peritonitis. The treatment may be summed up in a few words: early recognition, prompt emptying and washing of the stomach and such posture as may release a mesenteric compression. To these may be added any eliminative measure indicated if the enunctory organs are inactive. Early diagnosis is essential to successful treatment. The cases reported as cured were instances in which the trouble was promptly recognized and most authors predict a much lower death rate when the surgeon recognizes the frequency of such a complication and institutes early treatment. Whatever the cause may be the strongest indication is to thoroughly empty the stomach by means of the stomach tube and continue lavage at regular intervals. Nothing should be administered by the mouth. Nourishment and fluids should be supplied by rectal enemata. The large amount of fluids lost through the stomach may be replenished by saline infusion.

Atlanta Journal-Record of Medicine, Jan., 1908.

How to Prevent the Spread of Contagious Diseases.—Dr. S. A. Visanksa says it is of interest to note that people are awakening to a sense of responsibility in the prevention of contagion, and one admirable improvement in the conducting of the schools today cannot be too highly commended: this is the almost universal passing of the slate and the many unclean and unsanitary habits that followed the use of a slate, which only required a moistened finger passed across its surface to make it "clean" again. This method of disseminating disease cannot fail to be obvious in its results.

Another precaution which suggests itself strongly to the thinking man who would prevent the spread of disease is a supervision of the homes of the wash women. In the South particularly family washing is done almost exclusively by negro women at their own homes. It will be seen at once what a fruitful source of disease such a custom can and possibly does become. There should be a State law regulating this work and requiring that every person doing washing at her own home should register with the Board of Health, and should also be required to have her home subject to inspection by the health officers. Those having clean homes will not object to this, and those whose homes need sanitary cleaning will be compelled to do the necessary work in order to meet the requirements of the law. This precaution need not cost the individual wash-woman a single cent, and should be arranged for with but little extra expense to the Health Department; while it would certainly be of inestimable value in preventing the spread of disease. There should also be a stringent law covering the

taking of clothes from infected homes before they have been soaked in a strong antiseptic solution, rendering them harmless even when washed with other clothes. But when the final word is said as to the prevention of contagious diseases, the doctor can only caution against the manifold dangers from myriad and advise as to the protection against them. The real benefit to the individual must come from the intelligent co-operation with the health officers or those having the care of others, and the author believes this will be granted in fullest measure to the physician as well as to the Board of Health as soon as the necessity for it is fully realized.

The Southern Practitioner, February, 1908.

Twisting of the Pedicle in Ovarian Tumors--with Special Reference to Diagnosis.—Dr. M. C. McGamion believes that the symptoms vary much, depending upon the degree of torsion. Pain; enlargement of the tumor; rigidity of the abdominal muscles; tenderness on pressure; vomiting; shock and death are the signs of this accident. These symptoms, however, as might naturally be expected, do not all occur in the same case, or with the same severity, in different cases. When the tumor pedicle has undergone only partial torsion at first, the only symptoms will be a feeling of pelvic distress, that may not amount to pain, and a sensation of fullness due to the enlargement of the neoplasm. After a short time, perhaps a few hours or a day or two at most, these symptoms become more pronounced, and added to them is tenderness on pressure and perchance some slight elevation of temperature, depending upon the amount of peritonitis that has supervened. Movement increases the distress, so the patient remains in bed. After a time, when the adhesions between the tumor and the surrounding tissues and the tumor have become sufficiently organized, so that the blood currents are carried through them and independent of the pedicle, the symptoms may subside and the patient's future suffering and all future symptoms will be due to the presence of the tumor and the complications that may arise from the existence of the adhesions which have formed. When the twisting of the pedicle is sufficient to more or less completely shut off the blood supply from the tumor, the symptoms are very pronounced. The pain may be intense. The tumor enlarges rapidly and shock as the result of hemorrhage into the cyst may be profound, and should the cyst rupture collapse and death may speedily ensue. If the patient survives the shock, gangrene of the neoplasm with peritonitis will follow. Adhesions may so surrounP the tumor as to protect the general peritot neal cavity and if suppuration occurs, as iusually does, then the abscess will be walled off, and nature may further protect the individual by causing the abscess contents to be evacuated through the bladder, the intestines, or rarely through the abdominal wall.

Maryland Medical Journal, February, 1908.

What the Druggist Should Do.—H. A. B. Dunning says first of all, the individual druggist should have readymade those preparations which are the most popular, particularly the ones which require some time to prepare, and more particularly those which he has had one call for. Most assuredly he should not buy them from a manufacturing chemist. The preparations should be made very carefully for two reasons; firstly, to insure the physical agreement of the furnished product with that prepared by some other druggist; secondly, so that any defects in the formula may be observed and reported to the National Formulary Committee. It should be remembered that although therapeutically the formulas of the National Formulary are as they should be, because of the attempt to have the finished preparations represent the active ingredients unchanged and in full strength, the physical characteristics of some few may be faulty, and that it should be the endeavor of every pharmacist to correct these, in most instances, comparatively unimportant defects, by offering their criticisms through the proper channels.

There should be joint meetings of the physicians and pharmacists so that they, the pharmacists, may impress the physicians with the advantage of a universally non-secret formulary, pointing out clearly that the physician, by referring to the formula, is able to observe what he intends administering to his patient besides the so-called active ingredients. It should be pointed out further, as most physicians are aware, that proprietary preparations purporting to contain the same active ingredients frequently vary in strength, solvents, and other constituents, according to the ideas of the different manufacturers. Moreover, it is too frequently the case that the therapeutic activity, at least of some of the constituents of the preparation, is lost sight of in the endeavor to offer an agreeable, palatable, and elegant product. Further, the pharmacists should have on exhibition a limited number of samples, the discussion of which from a pharmaceutical standpoint should be led by a pharmacist, and from a therapeutical standpoint by a physician, both of whom have been appointed previous to the meeting. At these meetings the phy-

sican should be earnestly solicited to give the result of his observation of these preparations as he finds them in the sick room, any criticism of the physical characteristics or otherwise being carefully noted by the secretary as well as the difficulty had in having his prescription filled.

Texas Medical Journal, February, 1908.

Partial Thyroidectomy in the Treatment of Exophthalmic Goitre.—Dr. A. P. Heineck after giving a brief but comprehensive outline of the various theories as to the cause of this disease, and also after a critical analysis of the voluminous literature on the subject, has become convinced that the following conclusions are justified:

1. Thyroid gland substance, or any of the preparations, should never be administered in the treatment of exophthalmic goitre. Their use in that disease is irrational, and it is almost invariably attended by an aggravation of the existing symptoms. Their use invariably increases the dangers of operative interference.

2. As a therapeutic agent in the treatment of exophthalmic goitre thymus gland substance and its various preparations are useless. Their use is at times attended by an aggravation of symptoms. They cannot be considered curative agents.

3. Parathyroid extract as a curative agent of exophthalmic goitre has no efficacy. Mac Callum says that the alterations noticed in the glandular parathyroidae do not seem to be constant and sufficiently extensive to support the idea that parathyroids have anything to do with the development of the disease.

4. The medical treatment of the disease except belladonna is in reality largely symptomatic. For the anemia, arsenic has been given; for the nervousness, bromides; for the tachycardia, digitalis, strophanthus, etc. All these agents are palliative; not one has ever proved curative.

5. All forms of medical treatment of this affection, be they hygienic, dietetic, medicinal, organo-therapeutic, or electrical in nature are unsatisfactory. Their comparative powerlessness has induced surgical endeavors to cure the disease.

6. Serum therapy of exophthalmic goitre is as yet in an experimental state. The results attending the use of "thyroidectin" are not invariably satisfactory. Meller, Quine, Billings, and others have had failures attending its employment. Their use is not devoid of dangers.

7. It is now a demonstrated fact that all operative measures which tend to lessen the secretory activity of the thyroid gland or to diminish the amount of thyroid gland tissue present in the organism, are of value in the treatment of exophthalmic goitre. That method must be chosen which at the time seems to be the least dangerous without sacrificing chances of success.

Virginia Medical Semi-Monthly, Feb. 7th, 1908.

Diagnosis and Symptomatology of Cancer.—Dr. M. M. Pearson in referring to uterine carcinoma says that cancer of the uterus is primarily local, and in this stage it is capable of complete eradication and cure. There are no early pathognomonic symptoms but there are early suggestive symptoms, which within themselves are sufficiently conclusive to demand careful examination. These symptoms are neglected because of the popular ignorance of the public and often the carelessness of the profession, so that from 94 to 97 per cent. of cases are so long neglected as to be too late to receive benefit. The classical description that has so long stood as a picture of cancer—pain, hemorrhage, offensive discharge, emaciation, profound anaemia and ashen hue—is really a picture of impending death due to advanced cancer. Of suggestive importance are the following facts:

1. Any deviation of the menstrual period in the way of an excess or an intermenstrual discharge, especially in women over thirty, such as a mere show after coitus or defecation; or increasing length of the period even if only one day more than has been the patient's established habit.

2. An exacerbation in amount or change in the character of the discharge in a woman who may have had a simple leucorrhœa for months or years. Of these changes a free aqueous, acrid, or blood tinged discharge.

3. A leucorrhœal discharge in a patient who has never had it before.

4. Every atypical discharge in a woman after the menopause. Such a woman is especially liable to cancer and should, if possible, be even more exhaustively examined.

5. Pelvic pain of more than a few days duration should always be an urgent reason for examination, although very seldom an early symptom of cancer.

So that in making a summary of early suggestive symptoms the most prominent, in fact about all there is, is an abnormal hemorrhage for the individual patient or an abnormal discharge. Although this may attract the attention of the patient early and may cause her to come to the physician immediately, the average man has a problem that he is not capable of solving alone, for these suggestive symptoms are often met with in cases that do not prove to be malignant.

Nashville Journal of Medicine and Surgery, February, 1908.

Therapeutic Tips.—By Dr. E. S. McKee.

Virginia Medical Semi-Monthly, Feb. 21st, 1908.

Pneumonia.—Dr. B. S. Martin believes that no single plan of treatment can be relied upon. Each case is a law unto itself. Treat the case and not so much the name of the disease. There is no specific for the disease. Tyson says there are two periods in pneumonia when blood letting may be beneficial. The indications for it during the first period include: (1) Great dyspnea; (2) full, bounding pulse; (3) sharp pleuritic pain. The indications for blood letting in the second period are sharp, rapid breathing, with cyanosis and laboring pulse; usually about six ounces should be taken. The sign to stop is not so much the amount oi blood taken as the relief from the symptoms. The treatment of pneumonia by ice cold applications has recently grown in favor. The method used is as follows: Envelop the chest in a suitably fitted linen or muslin jacket—the ordinary cotton jacket will do—wet in cold water at 60 degrees Fahrenheit, and cover with flannel bandage one inch wide. Remove the jacket and apply dry cotton jacket whenever temperature falls to 100 degrees Fahrenheit, and renew if the temperature rises. Dr. Mays prefers to surround the body with ice, in bags wrapped in towels. When temperature of the body falls remove the ice and renew as required.

Hypodermoclysis of normal saline solution was used in a desperate case of pneumonia by Dr. Henry in 1889 in Philadelphia Hospital. About the same time Dr. Penrose published a paper on "Infusion of a Salt Solution" in pneumonia. From a half to one pint was given daily. The injection was made in the usual way. Dr. Penrose says the treatment is more efficient when given in connection with oxygen inhalations associated with blood letting, if there is distention of the right heart as evidenced by cyanosis and flagging pulse. Pneumonia antitoxin has continued to be used from time to time since its introduction by the Klemperers, but it has not established a reputation as a remedy superior to other methods in common use. Dr. Stephen Harnsberger in his recent article on open air treatment of pneumonia after his twenty-nine years experience believes that the modern death rate can be greatly reduced by this method. In all cases a suitable diet, proper ventilation, careful nursing, hygienic surroundings, and constantly looking after every comfort of the patient will aid in recovery in a great measure.

Book Notices.

Practical Fever Nursing.—By Edward C. Register, M. D., Professor of the Practice of Medicine in the North Carolina Medical College; Editor of the Charlotte Medical Journal, etc., etc. Octavo volume of 352 pages, illustrated. Philadelphia and London: W. B. Saunders Co., 1907. Cloth, $2.50 net.

We take great pleasure in most heartily commending the very excellent work of our editorial confrere.

This new work completely covers the field of fever nursing, and in such a practical, helpful way that nurses will find it of constant service. Dr. Register has concisely stated the pathology, prognosis, and treatment of each fever in as non-technical language as possible, in order that the nurse may care for her patient intelligently and realize fully the importance of certain signs and symptoms. The text is fully and excellently illustrated.

From the preface we make the following extract: "In the preparation of this volume the object has been to present to nurses a working text-book that will completely cover the field of practical fever nursing. A nurse, before she can intelligently care for a fever patient, must have some knowledge of the disease and its medical treatment. She cannot know the cause and significance of many of the symptoms unless she knows something of the pathological processes that are going on within the body, nor can she anticipate all that is expected of her by the physician unless she is at least partly familiar with the history and treatment of the fever which she is nursing. For this reason it is, as I interpret it, necessary, in the preparation of a work of this kind, to incorporate and describe in as non-technical a manner as possible the pathology of the different fevers, their prognosis, and the various methods of treatment."—The Southern Practitioner, Nashville, Tenn.

Surgical Therapeutics. By Emory Lanphear, M.D., Ph.D., LL.D., Professor of Surgery, Hippocratean College of Medicine; Chief Surgeon to the Woman's Hospital of the State of Missouri, St. Louis, Mo. The Clinic Publishing Company, Chicago. 1907.

Hundreds of books tell how to operate, but few describe the proper management of the patient without operation. A great many give careful directions as to when operations should be done with meagre mention of the preparation of the patient

for the operation, the care to be given him afterwards in order to procure for him the greatest degree of comfort or of the proper management of the wound. Operative treatment of surgical conditions has obscured the non-operative measures. Dr. Lanphear has devoted special attention to the latter side of surgery and the detail with which he describes methods will prove invaluable to the physician as well as to the surgeon.

The student is taught the best operative procedures and in many cases would not find great difficulty in applying his knowledge to cases; but he must learn the small matters which mean so much to successful work by experience and observation. We believe this little volume will supply a need which hitherto has been no remedy. It is practical, helpful, scientific and thoroughly up-to-date.

Personal Hygiene in Tropical and Semi-Tropical Countries. By Isaac Williams Brewer, M. D., Member of the American Society of Tropical Medicine. Illustrated with 8 Engravings. 12mo., 130 pages. Bound in flexible cloth, rounded corners. Price, $1.00, net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia, Pa.

Dr. Brewer has prepared a most useful and handy little volume which to the white man who lives in the tropics, or is preparing to go there, is invaluable. The colonization of the tropics has been the dream of the white race since the dawn of history. Nations have tried through the centuries but all have failed to materialize their dreams. Many theories have been advanced in the attempt to show why the white man is unable to thrive in the hot zones. He has only within recent years begun to realize that his success in this undertaking is a question of hygiene. Diseases against which the native has a natural immunity carry off the white races with startling rapidity. The vast majority of these affections are preventable.

The work of Dr. Brewer has been to collect into a small volume a few rules of hygiene based upon the experience of students of sanitary science in the tropics.

The Confederate Cause and Conduct in the War between the States. As set forth in the Reports of the History Committee of the Grand Camp, C. V., of Virginia, and other Confederate Papers. By Hunter McGuire, M.D., LL.D., Late Medical Director Jackson's Corps, A. N. V., and Hon. George L. Christian, of Richmond, Virginia. With an introduction by Rev. James Power Smith, D.D., Last Survivor of the Staff of "Stonewall" Jackson. L. H. Jenkins, Richmond, Va.

These papers have been published in less permanent form and have been widely read over the whole country. It is a matter of considerable gratification to us to see them issued in this form. While there is every reason why the breach between the two great sections of our country should be allowed to heal, still the children of those who gave their lives for the Confederate cause should know the truth regarding the war between the States. Histories which have been published by Northern writers and widely used in Southern schools have never given true accounts of those times, have taught children that their fathers and grandfathers were traitors and rebels, and defamed the character of great and good men. These errors should be corrected and as time goes on they are being disproved. Truth for its own sake and for the sake of honest history should be taught.

The present volume contains information which has refuted much that is untrue. None were better qualified than the lamented Dr. Hunter McGuire and the eminent Geo. Christian to speak authoritatively on these subjects. The address of Dr. McGuire on Stonewall Jackson and the account of the death of this celebrated Southern leader make the volume well worth reading. Every man, woman and child in the South should read this book.

Transactions of the Thirteenth Annual Meeting of the American Laryngological, Rhinological and Otological Society. Held in New City, May 30, 31, and June 1, 1907. Published by the Society, St. Louis.

A volume containing a long list of papers of unusual merit by men of national reputations. Original methods are most clearly described, highly interesting reports of cases presented and illustrated by cuts which are in the highest degree helpful. The volume is gotten up in a very attractive manner which reflects great credit upon the able secretary, Dr. Thos. J. Harris, of New York City.

Thirteenth Annual Report of the Department of Public Health, Augusta, Georgia. 1908. Issued by the Augusta Board of Health.

The Principles and Practice of Medicine. Designed for the use of Practitioners and Students of Medicine. By William Osler, M.D., F.R.S.; Regius Professor of Medicine, Oxford University. Sixth Edition, thoroughly revised from new plates. New York and London: D. Appleton & Company. 1905.

Osler's Practice of Medicine is too well known to need introduction or comment.

As a text-book for the student it is the standard in America, and as a practitioner's hand-book there has never been a superior work. No man has had so profound an influence on medical science of the Western Hemisphere as has William Osler, and no medical text-book has had so large a circulation as his Practice.

The sixth edition is in many respects a new book. So thoroughly has it been revised and, in many parts, rewritten, in order to bring it thoroughly up-to-date, that no physician can afford to be without a copy. Some rearrangement of subjects has been made. The publishers have made the volume more attractive in that they have furnished a larger page and new type and thus obviated any increase in the size of the book.

Diseases of The Stomach. By Dr. I. Boas, Specialist in Gastro-enteric Diseases in Berlin, Germany. The Sole Authorized English-American Edition from the Latest German Edition. By Albert Bernheim, M.D., (Freiburg, Germany), Assistant to the late Dr. D. D. Stewart at the Philadelphia Polyclinic Hospital and Post-graduate School, as Instructor in the Department of Diseases of the Stomach and Intestines, etc., etc. Appropriately Illustrated with Five Full-page Plates and Sixty-five Engravings in the Text. 730 Royal Octavo Pages. Extra Cloth, $6.00 net. Half-Morocco, $7.50 net. Sold only by Subscription. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia, Pa.

Dr. Boas's Treatise on Diseases of the Stomach has been immensely popular in Europe, not only in Germany, but also in other continental countries. Editions have been published in Russian, Italian, Spanish and English. This alone should be sufficient guarantee of its worth. The work on "Diseases of the Intestine," preceding the present volume, has met with a most favorable reception among English speaking people and another volume from so well known and eminent an authority as is Dr. Boas cannot fail to receive a similar welcome. The success of his writings are due to the clear concise form of presentation of the subject. Obscure hypotheses are avoided and incomprehensible and unnecessary discussions of theories omitted.

The book is a valuable one not only for the physician who in the stress of daily work has not the time to pay sufficient attention to the manifoldly disseminated literature and to follow up the progress of in this branch, but also should it be in the hands of the teacher and student who devote attention to the subject of Stomach Diseases. The work is the result of long years of careful observation and practice. It therefore contains all that is most up-to-date and modern in diagnostic and therapeutic methods. The translator, Dr. Bernheim, is to be congratulated on his preservation of the book in its original form. He has made but few additions.

We know of no other work which equals this one.

The Production and Handling of Clean Milk. By Kenelm Winslow, M. D.; M. D. V.; B. A. S. (Harvard). Formerly Instructor in Bussey Agricultural Institute and Assistant Professor in the Veterinary School of Harvard University. Author of text-book on Veterinary Materia Medica and Therapeutics, Chairman of Committee on Milk of Washington State Medical Association, &c. William R. Jenkins Co., 851-853 Sixth Ave., New York. 1907.

The author of this volume is a graduate in agricultural science, in veterinary and human medicine. He has been connected with a laboratory in which the milk supply of a large city is examined and his experience in the production and distribution of clean milk is not limited. These facts prove his qualification to speak authoritatively on the subject he has chosen. A problem of vast proportions in every city and town of even a few thousand inhabitants is that of clean milk. Never before has there been so general a movement throughout the whole country toward betterment and regulation of milk supply.

This book considers every phase of the production and distribution of milk from the feeding, housing, caring for and milking the cow, to the delivery of the milk to the consumer. It should be in the hands of every dairyman, sanitarian in America.

Bier's Hyperemic Treatment in Surgery, Medicine and all the Specialities: A Manual of Its Practical Application. By Willy Meyer, M. D., Professor of Surgery at the New York Post-Graduate Medical School and Hospital; and Professor Dr. Victor Schmieden, Assistant to Professor Bier at Berlin University, Germany. Octavo of 209 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1908. Cloth, $3.00 net.

No method of treotment is today receiving greater attention than that advocated by Bier of Germany. The teachings of this eminent man are of far-reaching importance and great practical value and there is little doubt that the method will be generally recognized and employed in America sooner or later. Fifteen years

have passed since Bier first published his method, and yet it is only within the past few years that medical men have begun to hear much of it. Most physicians have a more or less perfect idea of its working principles: relatively few have tried it. Some have attempted it but, owing to imperfections of technique, have not obtained the results they should. The present small handy volume by Drs. Meyer and Schmieden, the latter assistant to Professor Bier, University of Berlin, brings to the profession a thoroughly practical exposition of the subject. Upon reading it one is impressed with the utter simplicity of the descriptions of apparatus and their application. The illustrations are unusually good. The publishers have made the volume very attractive. Every doctor should have one.

Mechanical Vibration and Its Therapeutic Application. By M. L. H. Arnold Snow, M. D. 1904: The Scientific Authors' Publishing Co. New York.

Vibration Therapy has sprung so into vogue that one welcomes a book which deals scientifically with the subject. Massage has been practiced in some form for ages past. During the past few years machines have been perfected which have made the application of the principles of scientific massage less laborious and more perfect. That there is an extensive field for its application is not to be denied, yet one should not ignorantly attempt its therapeutic employment. Many doctors are using mechanical vibration; few perhaps are doing it properly. This work by Dr. Snow is opportune, since it supplies a real need. He calls attention to the fundamental principles which will enhance the value of mechanical vibration not only in its present therapeutic applications but in the important field which is just opening for it.

A Text-Book on Uric Acid and Its Congerers. For Medical Students and Practitioners. By Geo. Abner Gilbert, M.D. First Edition. 1907. Danbury Medical Printing Company, Danbury, Conn., U. S. A.

A very complete work on the subject of uric acid with special reference to its physical and chemical properties, its metabolism and accumulation in the organism together with the disease processes arising therefrom and their etiological therapy. Most doctors and students gather from their reading some more or less hazy ideas about uric acid and the symptoms arising from its accumulation in the body. Few however have any very well defined conception of the subject. The work of Dr. Gilbert, a recognized authority, places within the reach of every practitioner a handy useful volume which deals exhaustively with the subject of uric acid in all its details. It supplies a very genuine need.

Currents of High Potential and other Frequencies. By William Benham Snow, M. D. 1905. Scientific Authors' Publishing Company. New York.

The study of the application of currents of high potential associated with variations in current strength and frequency as applied in therapeutics is engaging the attention of the medical profession as never before. Small attention, however, has been given to the subject of *high potential* with *low rates* of frequency. It is just this which Dr. Snow deals with in his most recent volume. His method of exposition is unusually clear and concise, the illustrations being a great aid to proper understanding.

Diseases of the Nervous System. Edited by Archibald Church, M. D., Professor of Nervous and Mental Diseases and Medical Jurisprudence, Northwestern University Medical Department, Chicago. An Authorized Translation from "Die Deutsche Klinik" under the general editorial supervision of Julius L. Salinger, M. D. With one hundred and ninety-five illustrations and five colored plates. 1908. D. Appleton & Company. New York and London.

Every practitioner must have been frequently impressed with the inadequacy of the usual text-book description of the various nervous and mental diseases with which he is brought into contact. Even books of reference do not always give the scope to special topics that are requisite to place the physician in a satisfactory position relative to any particular disease he may be called upon to treat. The articles on nervous diseases embraced within this volume meet this actual want in a manner so admirable that to the beginning practitioner, even, the place of personal experience is to some extent supplied, and to the specialist a most admirable guide is furnished.

Men of experience and world wide reputations have contributed to the volume thus producing a work which is not only authoritative, but also practical. The manner in which the subject matter is presented appeals to the medical reader.

One is struck throughout the book with the fact that while Germany is supposed to be the land of therapeutic nihilism these authors have not neglected therapeutics. Their considerations will be found to be helpful to the doctor.

The book is one of the attractive "Modern Clinical Medicine" Series which Appleton is publishing. It is a most excellent work.

The Negro: A Menace to American Civilization. By R. W. Shuffeldt, M. D., Major, Medical Department, U. S. Army (Retired), .

The result of long years of close observation and study of the negro race in the United States, Dr. Shuffeldt's book presents a side of the negro problem in a most plainly impartial light. He has approached the subject in a scientific manner. The author believes that the taking of Africans out of Africa and selling them in America by no means makes Americans of them. The unmixed African is today in America just as much a negro as his ancestors were in his native country. Some idea of his treatment of the subject may be had from the list of chapters: Man's Place in Nature from a Biological Standpoint; The Ethnological Status of the Negro; The Introduction of the Negro into the United States—The African Slave Trade; Biological Principles of Interbreeding in Man and Other Animals; Half-breeds, Hybridization, Atonism, Heredity, Mental and Physical Characters of Race Hybrids; The Effects of Fraterdization between the Ethiopian and Anglo-Saxon Races upon Morals, upon Ethics, and upon the Material Progress of Mankind; Passion and Criminality in the Negro; Lynch Law and other Questions; Discussion of Remedies, Opinions of Others.

A Cure for "That Tired Feeling."

By way of alleviating the mental and physical discomfort following a trying day, one is surprised by the effectiveness of taking a bath and changing all the clothing. This treatment, in fact, almost offers a sure cure, but the person who would be most benefited thereby is the person so obsessed to pursue the miserable tenor of his way that he scouts the suggestion that he thus bestir himself, instead of sinking into an easy chair. He may, however, accept the suggestion that simply changing the shoes and stockings is extremely restful, when reminded that if he had worn kid gloves all day he would be relieved to free his hands from the incubus, and, if gloves must still be worn, to put on a cool pair.

It is a further aid to physical, and indirectly to mental, comfort, if one can learn to wear low shoes and the thinnest of underwear the year round; the former is almost a panacea for fidgets; the latter lessens the perspiration, which increases the susceptibility to drafts, and to even moderate lowering of temperature. The prevailing belief that this procedure is dangerous is disproved by the experience of the many who have given it a thorough trial. The insistent belief of the neurotic that he cannot acquire this habit was touched upon in the article on "Worry and Obsession." If he thinks he is "taking cold," let him throw back his shoulders and take a few deep breaths, or, if convenient, a few exercises, instead of doubling the weight of his underwear, and in the long run he will find that he has not only increased his comfort, but has lessened, rather than increased, the number of his colds.

—George Lincoln Walton, M. D., in *April Lippincott's.*

The Presidential Bee.

The Apis Potomacus Whitehousicus, or common variety of presidential bee, is the most widely distributed of all hymenoptera. It is, however, so busy with its buzzing and stinging that it finds time to gather no honey. Its activity varies with great regularity through successive four-year cycles. Its sting is often virulent, and it attacks native human beings of the male sex, although occasionally it attacks the female, as in the famous case of Belva Lockwood.

In most cases the patient is affected as by a mild stimulant, or as one who has been smoking opium. Such cases need cause no concern, for, while persistent, they may readily be treated by increasing the hours of labor and reducing the income.

The toxic of this bee, however, acts most virulently upon orators, lawyers, Kentucky colonels, country newspaper editors, and Senators. Its most marked effect upon these is to render abnormal the predominating proclivities of the patient and otherwise exaggerate his ego.

In extreme cases, the patient is seized with an uncontrollable desire to shake hands, and, while attacked with excessive garrulity, is unable to express an opinion twice alike in the same place, or, for that matter, in different places.

The only known remedy for this is solitary confinement, notwithstanding the fact that some authorities claim the climate of the Salt River district to be beneficial. Cases are on record where several trips to Salt River showed not the slightest diminution of the malady.

Instances are also on record where men of great power, learning, and ability have never uttered a coherent, explicable sentence after being stung by the presidential bee.

—*March Lippincott's.*

The Retiring Admiral of Our Great Fleet.

Admiral Evans by his service in war and peace was honestly entitled to the proud command of the great battleship fleet in its sweep from the Atlantic to the Pacific,—a command which he will soon relinquish on retirement for age. For it is Admiral Evans

more than any other man who has made the battleship fleet what it is today in the precision of its discipline and in its terrible war-like efficiency. As admiral-commanding on the Atlantic station he has seen the great fleet grow for several years, while ship after ship has joined his flag after her "shaking-down" cruise, from the yard of her builders. He has schooled ships and men by hard, constant drilling and maneuvering, summer and winter, up and down our Atlantic Coast, until what was at first merely a powerful collection of individual fighting units has been welded gradually into a compact, controlled battle-line, as responsive to his signals as a great locomotive to the hand of its engineer, and a thunderbolt to launch against an enemy.

The career and the character of Admiral Evans are vivid proof that America is still producing men with the old racial genius for the sea,—and officers of this type are, after all, as indispensable to the nation as the mightiest ships and guns which our workshops can fabricate; for the human factor in national defense, in naval warfare, has grown and not lost in importance since the days of spars and canvass, of wooden walls and smooth-bore artillery.—From "The Greatest Naval Cruise of Modern Times," by Winthrop L. Marvin, in the *American Review of Reviews* for April.

Abstracts of the Leading articles of the month.

Diabetes Mellitus.—Bosanquet (Lancet) reports two fatal cases of diabetes mellitus occurring in two brothers. Among the points of interest were the following: 1. The hereditary incidence of the disease was well shown, no less than four members of one family being affected. Alopecia areata also occurred in three of the cases. 2. In one case the onset of the disease was very rapid and accompanied by abdominal pain, suggesting an acute affection of the pancreas. In the other case the onset was insidious. 3. In one case the patient passed into a deep state of coma, and yet recovered for a time, dying comatose eventually, the kidneys showing acute inflammation. The acetonæmia did not depend on any lack of carbohydrate food. 4. In one case the amount of sugar in the urine varied independently of the diet taken, thus bearing out the author's views as to the origin of sugar in diabetes, viz., that some portion of the sugar arises from a breaking down of the cells of the body, in addition to that which may be due to some defect in the process of absorption of sugar from the alimentary canal or of its destruction in the body. 5. Secretion failed to act beneficially in either case. Its employment in diabetes can only be upheld on the principle that the formation of the internal secretion of the pancreas and that of the digestive ferments take place as a single chemical action, the lining substance breaking down simultaneously into both these substances. 6. In both cases the anatomical condition of the pancreas was striking; in each there was marked atrophy of the organ without noteworthy alteration of structure. In both there were plenty of normal looking islands of Langerhans, thus tending to support the view that the typical condition of the pancreas in diabetes is atrophy, affecting the secreting cells as a whole. In both cases there was well marked arteriosclerosis, which is the most constant feature in the pancreas in cases of diabetes.

Acute Tuberculous Fever.—Roberts and Bhandarkar (Brit. Med. Jour.) call attention to the existence of an acute fever, due to the tubercle bacillus, and which is often confounded with typhoid and malarial fever. The fever is of a remittent or intermittent type, lasting from a week to four weeks; the liver is often enlarged, the spleen not so. Vomiting and nausea are marked, but not continuous. The most distinguishing feature is pain and tenderness in the epigastrium, on which stress is laid in diagnosis. Some cases have acute exacerbations of pain, others only tenderness, which, if it is associated with hepatic enlargement, makes the diagnosis from liver abscess very difficult; but the detection of tubercle bacilli in the urine clears up all doubt. The mind is clear, generally remarkably so. The tongue is furred, but not coated as in typhoid fever. This fever is completely recoverable from, but it marks the launching of the patient on a tuberculous career—the beginning of a long period of ill health of an indefinite kind. This general malaise is not continuous. Another set of cases develop obvious tuberculosis—tubercle of the lungs, kidneys, etc. The initial acute tuberculous fever has been by that time completely forgotten. In this fever the abdominal symptoms point to probable invasion through the alimentary canal. It is not to be confounded with tuberculous peritonitis. The mortality is low, and the condition does not drift into acute miliary tuberculosis. The direct evidence is supplied by the detection of the tubercle bacillus in the urine. The technique is that given in the books; attention is called to the importance of a good centrifuge, the washing of the deposit in distilled water once or twice to insure fixation, and the use of egg albumin to facilitate this. The Ziehl carbol fuchsin method of stain-

ing was the one used. The writers are convinced that there exists a tuberculous cachexia, not only as the sequela of acute tuberculous fever, but coming on gradually, and manifesting itself by indefinite malaise. Its detection depends on the examination for tubercle bacilli in the urine. This stage is probably the precursor of an evident tuberculous disease, such as affections of the lungs, kidneys, bones, or abdominal organs. This cachexia exists along with a low opsonic index, and it is important to raise this to effect a cure.

The Treatment of Acute Gonorrhoea.—Pardoe (Practitioner) considers two methods, the abortive and the expectant, the choice of treatment depending upon the limitation of the infection to the anterior urethra or its spread along the entire length of the canal. The abortive treatment is effective only in cases which are seen within a day or two after the appearance of symptoms and before the discharge becomes purulent. It consists in cleansing the urethra, determining the extent of infection with the urethroscope (after the application of a local anæsthetic), and then the free application to the urethra of a 2 to 4 per cent. solution of silver nitrate. This may be repeated, if necessary, in forty-eight hours. If the disease has passed the initial stage, urethral irrigation twice daily, for ten days, with a weak solution of potassium permanganate, will often prevent its further progress. In the expectant method of treatment cleanliness of the penis and urethra is imperative, antiseptic lotions and plain hot water being frequently applied. The diet should be simple, alcohol should be abstained from, and the urine should be made alkaline. When the pain and scalding of micturition are ended the balsams are indicated. Irrigation with permanganate of potash solution should be practiced several times a week.

Membranous Rhinitis.—Rose (Practitioner) thinks that, notwithstanding the frequent descriptions of this condition, it is frequently overlooked even by specialists in nose and throat disease. A bacteriological examination of a culture from the nasal membrane or the discharge will usually reveal many diphtheria bacilli. It usually occurs in children who may be in fair general condition, running from the nose, slight bleeding, and nasal obstruction being pronounced symptoms. The mucous membrane of the nose is congested and covered with a more or less dense and tough membrane. The pharynx is usually normal in appearance. The disease usually continues four to six weeks. The patient should be isolated as in well pronounced diphtheria, antitoxin should be injected, and the nose irrigated. Removal of the membrane by force does no good, as it will immediately reform. Though this is considered a mild form of diphtheria and should be treated as such, it will not communicate to a susceptible person diphtheria in a severe form, but only a similar rhinitis or a sore throat with a small patch of exudate.

Acute Poliomyelitis.—Pasteur, Fouelrton, and MacCormac (Lancet) report that after having identified a micrococcus in the spinal fluid withdrawn during life from a boy with symptoms of acute poliomyelitis, they succeeded in producing an ascending motor paralysis in a rabbit, after a prolonged period of incubation, by inoculating this fluid into the subdural space. On the death of the rabbit a micrococcus could be demonstrated in the cerebrospinal fluid similar to that seen in the fluid from the human case; and by similarly inoculating another rabbit with an emulsion of cerebrospinal substance and fluid from the first experimental animal they again succeeded in producing a motor paralysis again associated with the presence of the micrococcus in the spinal fluid. The evidence is bacteriologically incomplete, however, as it was not possible to cultivate the organism on artificial media. The writers hold that the investigations of Geirsvold and others have established beyond question the existence of a specific infective disease of which acute poliomyelitis is a frequent and prominent, but not essential, feature. This specific disease has apparently no clearly distinctive primary features to enable one to distinguish it by its clinical symptoms from many other febrile conditiogs of probably infective origin. And so while the serious complications of acute poliomyelitis when it has occurred has been at once recognized, the primary disease has not been distinguished hitherto, but has in fact usually been altogether overlooked. But there is not sufficient reason for assuming that acute poliomyelitis is always a result of this particular diplococcal infection. The symptoms by which acute poliomyelitis is recognized are the consequences of a constitutional alteration of certain cells of the central nervous system, which causes an impairment of their functional efficiency. It is probable that these cell changes may be caused also by the toxines produced in other infective processes.

Blackwater Fever.—Prout (Brit. Med. Jour.) holds that the group of symptoms known as blackwater fever is due to a special condition of the blood produced by repeated attacks of malaria—a condition in which, possibly through the long continued strain on the blood making organs, there is

a lowered vitality of the red blood cells, the connection between the hæmoglobin and the stroma is weakened, and then some exciting cause produces a sudden hæmolysis, with the resulting phenomena of blackwater fever. The exciting cause is in some instances undoubtedly quinine, in others chill (as in the paroxysmal hæmoglobinuria of temperate climates), and in others toxines absorbed from the intestinal canal. After the hæmolysis has taken place, we have to deal with the action of dissolved hæmoglobin in the blood; it is irritating and produces various secondary symptoms, among them jaundice and nephritis. It is therefore evident that when a case of blackwater fever comes under observation, the mischief is already done. In treatment two things must be dealt with—the loss of blood, which may be enormous, and the presence of hæmoglobin dissolved in the plasma. The indications for treatment are as follows: 1. Get rid of the morbid products. Empty the intestinal canal thoroughly with calomel. This relieves the liver and has an antiseptic action on the intestinal canal. Aid elimination by the skin and kidneys by means of the administration of diuretics and diaphoretics. But where vomiting is constant the stomach must be left severely alone, a large, high, hot enema being given each morning. 2. Counteract the malarial element in the attack. If malarial parasites are found in the peripheral circulation, at least one dose of quinine should be given, preferably by hypodermic injection. If there is any recurrence of the hæmoglobinuria it should not be repeated. 3. Support the patient's strength, but avoid overstimulation with alcohol. 4. Alleviate any distressing symptoms. Of these vomiting is the most constant, and it is best relieved by washing out the stomach, if the ordinary remedies (oxalate of cerium, etc.) fail. For the sleeplessness morphine should be given. The after treatment is of course directed against the anæmia. Arsenic and a change of climate are most beneficial. A single attack of blackwater fever can be completely recovered from and leave no ill effects.

Injections of Air for Pain.—Gubb (Brit. Med. Jour.) reports nine cases in which subcutaneous injections of air were given for the purpose of relieving painful manifestations. The method was introduced by Cordier at a time when elongation of nerves by stretching was in vogue for the treatment of neuralgia, especially sciatica. The injections are supposed to produce elongation of the finer nerve tendrils where they leave the subcutaneous tissue to enter the derma proper. The method is simple, a sterilized hollow needle being plunged through the skin over the seat of the pain, and after making sure that a blood vessel has not been entered, air is pumped in by means of an ordinary rubber bulb. In the air tube is placed a glass tube filled with sterilized cotton. A rounded swelling forms round the seat of puncture, and when the air reaches a vascular or nervous sheath it rapidly spreads along it and secondary swellings form at a distance. These secondary ramifications are specially likely to form on the limbs. The skin at first becomes blanched, but later this gives place to a pronounced redness lasting several hours. It takes several days for the air to be completely absorbed. No pain is experienced, and cutaneous sensibility is at once diminished, the skin becoming numb. After the needle has been withdrawn and the hole closed with collodion, it is indispensable to massage the part. The subcutaneous air must be alternately dispersed and brought together again, especially over the painful spots. The procedure is applicable to the relief of pain due to all forms of neuralgia and neuritis. But the amount of air must be varied according to the anatomical structure of the part. In the treatment of sciatica the injections should be made in the lumbar region, on the outer side of the thigh and on the superoexternal part of the leg. The writer has not yet ventured to try this mode of treatment in neuralgias of the face. In all nine of the cases reported, relief was rapid and lasting.

Heart Disease in Relation to Pregnancy and Labor.—Blacker (Brit. Med. Jour.) asks the question, What is the best treatment of these cases? Hicks and French maintain that the treatment of a case of pregnancy complicated by heart disease is to treat the heart disease, and that we need take no account of the pregnancy. And that conclusion being in large part a correct one, the author does not consider in detail the treatment of the heart disease, but discusses the obstetrical treatment, and mainly the question whether it is desirable to carry out any treatment of the pregnancy besides that directed to the condition of the heart.

If we have a patient suffering from heart disease complicating pregnancy, we will place the patient at rest in bed, treating the heart condition by such rest or by the administration of heart or general tonics. Above all things, we will insist upon absolute rest in bed in the worst cases. Is it, however, ever advisable or justifiable to treat these cases by the induction of abortion or by the induction of premature labor? Is the contention of Hicks and French wholly correct that we need treat the heart,

and the heart only, or is it necessary sometimes to cut short the pregnancy? The author believes it is, and that in many cases the correct treatment is not only to treat the cardiac symptoms, but to relieve the patient of the strain produced on the heart by the pregnancy by the induction of abortion in some cases, or by the induction of premature labor in others. And he is of opinion that there are more cases in which the induction of abortion or of premature labor is good treatment than is generally supposed. It may be said that the immediate danger is increased by the induction of abortion or of premature labor, because the danger after delivery is greater than that during pregnancy and labor. Therefore we may from time to time, as in other severe diseases complicating pregnancy, such as albuminuria, meet with cases in which the result of inducing premature labor is markedly to increase the danger to the patient for the time being. But in the majority of cases, if such interference is really necessary, we will by its adoption improve the patient's condition, and not make it worse.

The following is a good illustration of the class of cases in which abortion should be induced: The patient, a woman aged thirty-two, had had two children and three miscarriages. She was suffering from double mitral disease, with marked dyspnœa, edema of the lungs, cough, and hemoptysis, and was markedly anemic. Considerable improvement took place with complete rest in bed and medical treatment, but the cough continued to be very troublesome. The edema of the lungs did not clear up entirely, and after a time her general condition remained stationary. As she did not continue to improve, and as she was five months pregnant, so that she had a prospect of another four months before her confinement could be expected, in which the strain on the heart would continue to increase, the author decided to induce abortion by the rapid method under anesthesia. The cervix was accordingly dilated under ether to No. 26 Hegar's dilator, and then to a diameter of three and one-fifth inches by Bossi's dilator, and the uterus emptied. A considerable degree of hydramnios was present. After delivery the symptoms rapidly improved, the cough ceased, the physical signs of congestion and edema of the lungs disappeared, and the general condition improved very markedly. In such a case as this the induction of abortion is justifiable and occasionally necessary. The author here recapitulates the reasons why in this case he induced abortion: first, because the patient had marked symptoms of failure of compensation as early as the fifth month, and secondly, that these symptoms, although they were improved by rest in bed and medicine, did not entirely disappear. He thought further that the strain of another four months of pregnancy, increasing, as inevitably it must, during the latter part of the term, would be too much for the weakened heart, and that therefore it was justifiable to terminate the pregnancy.

If we decide to induce abortion in one of these cases, then the best method is to give an anesthetic, to dilate the cervix, and to empty the uterus at one sitting. The class of case, then, in which abortion should be induced, is that in which ordinary medical treatment has produced no, or only very little, improvement in the general symptoms, and in which no further improvement in the cardiac condition is likely, so that it is essential that the strain of a long pregnancy should be avoided if possible.

The following case is an illustration of the class in which premature labor may be induced: The patient was twenty-five years of age, a primipara with double aortic disease. She had some edema of the legs, was markedly anemic, and had severe syncopal attacks from time to time. With treatment by rest in bed and medicine she improved considerably, but when she got out of bed and about she had further syncopal attacks, so that her condition was not quite satisfactory. He tided her over her difficulties as long as possible, but at the thirty-eighth week the author determined to induce labor because the syncopal attacks were rather frequent, and it was therefore thought best to put an end to the pregnancy. A Champetier de Ribes's bag was introduced under an anesthetic, and when the first stage was completed the patient was delivered under ether with forceps. The child is alive, the mother did well, and at the time his article was written had lost all her cardiac symptoms.

Some authors hold that the induction of premature labor increases the danger to the patient; but the writer does not think that this is so, because if we induce premature labor we can make arrangements to carry out the delivery in the best conditions and with the advantage of skilled assistance. He thinks, then, that in the case of patients who do not improve under ordinary medical treatment, it is wiser to terminate the pregnancy rather than to let the patient go on to full term. This does not agree with the conclusions of Hicks and French, based upon the obstetrical histories of their 300 cases. They contend that the induction of premature labor is not necessary, since the great majority of their patients bore a considerable number of children with little or no danger. No doubt this is true of the

general run of cases, just as it is true that the majority of cases of valvular heart disease complicated by pregnancy do very well with ordinary medical treatment. But we will meet with exceptional cases from time to time which require not only medical treatment, but, in order to lessen the strain thrown upon the overburdened heart, require further than this the induction of abortion or of premature labor.

The treatment of the condition at the time of the patient's confinement is of some importance. We must guard against the risk of cardiac failure, and if there are signs after the delivery of the child that the right side of the heart is overdilated, we should encourage postpartum hemorrhage, or we should actually bleed the patient. Such a mode of treatment undoubtedly yields good results where there are symptoms of overdistention of the right side of the heart and consequently danger of paralysis. Where the patient is pallid and the pulse very small, with no signs of overdistention on the right side, and where it is probable, therefore, that the blood is accumulating in the abdominal veins, the intra-abdominal pressure should be maintained at the time of delivery by the use of a sand-bag or a tight binder, and appropriate means must be taken to stimulate the heart's action.

There remains for consideration only one question, and that is the truth of the dictum laid down in many books that a patient with heart disease should not marry, or if she does marry she should not have children, or if she does have children she should not suckle them. Such a dictum, it will be agreed, is too sweeping. The majority of women with heart disease pass through their pregnancy and confinement with perfect safety and have no symptoms, and therefore it is not right to say that a young woman who has heart disease should never marry. If her heart disease is compensated, and there are no symptoms, she may marry. Cardiac failure probably will occur sooner or later, as Hicks and French point out, whether she becomes pregnant or not. The bad effect produced on the heart by pregnancy is, on the whole, not sufficiently marked to justify us in advising a patient strongly that she should not marry. It is true that if she marries it will be better for her not to have children, and it is true that if she does have a child she should not suckle, but it is not right that a woman with heart disease should be forbidden to marry. Although the danger is undoubted, and the mortality is as high as 12 per cent., yet it has been exaggerated, and the majority of these patients do perfectly well, and run no very great extra risk. So that a young girl with heart disease which is compensated, and which is not complicated by any accompanying disease of the lungs or other viscera, may be permitted to marry. Her heart will probably fail sooner or later, whether she marries or not, but whether the time of the onset of such failure of the heart will be precipitated by child-bearing is a matter which admits of argument. There probably will be some precipitation, but it is doubtful whether the risk of this is so marked as to justify us in denying her the right to marry. Therapeutic Gazette.

Conjunctivitis.—Cunningham (British Medical Journal) discusses a few types of conjunctivitis as follows: Catarrhal conjunctivitis may be acute or chronic. The predisposing causes of the acute form are a lowering of the local vitality, as from a cold or a foreign body, or of the general vitality from defective hygienic surroundings. The exciting causes are several micro-organisms, of which the Koch-Weeks bacillus is the most common; it attacks all ages but especially the young, and causes a mucopurulent conjunctivitis which is highly contagious. This is the disease known as *school ophthalmia*, handkerchiefs and towels being the chief media of contagion. Other organisms causing conjunctivitis are the pneumococcus, the xerosis bacillus, and the streptococcus. The symptoms of acute conjunctivitis are well known; the condition usually lasts for a week or two. The treatment consists in the use of boracic lotion and boracic ointment, and painting the everted lids with one of the milder silver preparations. The chronic form may follow an attack of the acute form, or be due to irritating dust, gases, etc. But the most frequent cause of its continuance is an error of refraction, especially astigmatism. A definite type of chronic conjunctivitis, known as chronic angular conjunctivitis, is caused by the Morax-Axenfeld diplobacillus. The symptoms are aching and a sensation of sand in the eyes, the lids being glued together in the morning. There is no swelling of the conjunctiva, and secretion is diminished. The edges of the tarsal plates are injected. The condition does not resolve spontaneously, but goes on to involve the edges of the lids, the cilia being lost. The patient must be removed to better hygienic surroundings, the eyes protected from dust by means of goggles, and an astringent lotion used, composed of alum, tannin, or zinc sulphate. Phlyctenular conjunctivitis, also called eczematous or lymphatic conjunctivitis, is seen most frequently in children of the working class, most of them being either definitely tuberculous or of the strenuous

diathesis. No specific bacillus has as yet been found. The phlyctenule appears as a small elevation on the limbus conjunctivæ, and is thought to be a reaction of the tissue to the toxines of the tubercle bacillus. Subjectively there is photophobia and frequently blepharospasm. Lacrymation may be profuse, but there is little or no mucopurulent discharge. The phlyctenulæ ultimately break down and form ulcers, which heal in a week or two. But subsequent attacks soon recur. Dark glasses must be worn, and boric lotion and boric ointment used. If the cornea is involved atropine must be used also. Ophthalmia neonatorum is a purulent type of conjunctivitis found in the newborn, in which the conjunctiva shows a marked papillary development and in which there are seldom any signs of scarring on recovery. In the great majority of cases the cause is the gonococcus, but pneumococci, streptococci, and colon bacilli have also been found. The treatment consists in cleaning the palpebral sacs and keeping them clean. A useful solution to use is 1 to 5,000 bichloride of mercury. Prophylaxis is of the utmost importance in this affection (Crede's method).

Avian and Human Tuberculosis.—Shattuck, Seligman, Dudgeon, and Panton (Lancet) have studied the relationship between tuberculosis in birds and in human beings. They find that the human tubercle bacillus is pathogenic to the pigeon in a limited degree only. It sets up a local or local and glandular disease in the pigeon only when injected into the muscles or subcutaneous tissues. The avian tubercle bacillus is pathogenic to the guinea pig in a very limited degree. The human bacillus is not convertible into the avian by inoculation into the bird—i. e., the bacilli are not identical. Theoretically it would, of course, be quite possible that the human bacillus after its insertion into the pigeon might lose certain of its characters and become incapable of exciting more than a trivial disease in the guinea pig or in the human subject from which it was originally derived. Their experiments do not, however, support this theoretical possibility. As evidence of the non-identity of the human and avian tubercle bacillus, the writers attach more importance to the positive results afforded by feeding and inoculation experiments than to the negative evidence in the other direction provided by the opsonic test. The latter shows, it is true, that either bacillus will extract the opsonin from tuberculous serum. But they do not regard this as a proof of their identity; it is by no means a proof, i. e., of the identity of their physiological or chemical properties. The opsonin may be extracted from the tuberculous serum by saturating it with a thick suspension of melanin, which proves that the general removal of opsonin by bacilli is not wholly indicative of specificity, but that it is largely mechanical.

Vaccines and Bacterial Infections.—Western (Lancet) summarizes as follows the results obtained by him in treating cases of bacterial infection with vaccines according to Wright's method. In cases of lupus, both of the dry and ulcerated varieties, though particularly of the latter, treatment by inoculation has proved a very valuable adjunct to such other measures as procure a local hyperæmia. Out of thirty cases of enlarged tuberculous glands only four failed to show improvement, whilst six were completely cured, eight of which when first seen were discharging from contaminated sinuses. In the case of chronic tuberculous arthritis and in such topographically diverse affections as erythema induratum and tuberculous epididymitis, the results have been almost universally satisfactory; in affections of a non-tuberculous origin, those such as acne, generalized furunculosis, and obstinate carbuncle, which have been treated with their appropriate vaccines, have cleared up with remarkable rapidity. The narrower experiences of pneumococcal and bacillus coli infections are sufficiently significant to foreshadow the far wider fields that seem to be opening before a line of treatment that bids fair, at no distant period, to rank among the most potent weapons of future therapeutics.

The Local and Internal Treatment of Gonorrhea.—Neisser (Medizinische Klinik) the discoverer of the gonococcus regards the local measures as most important in the treatment of gonorrhea. He prefers injections to irrigations because the latter require too much time and special attention and cannot therefore be used in every case. Moreover, if the patient is provided with the proper solutions and syringe, and is carefully instructed in their use, injections are entirely harmless in all but exceptional instances. The writer wisely admits, however, that the injection treatment is neither ideal nor simple. The question naturally arises whether internal treatment with the modern balsamic preparations does not fulfill the necessary indications. To this the author returns a negative answer and gives as his reason that the remedies referred to do not destroy the gonococcus. He acknowledges, however, that in the treatment of gonorrhea internal remedies—the balsamics—are a valuable adjunct to local measures, for they alleviate the distressing symptoms due to irritation of the mucous

membranes of the urinary canal and thus sustain and render more efficient those procedures which the author regards as essential in the earliest stages of the disease.

Neisser's own experience leads him to prefer gonosan for the purpose indicated; and the solution of the burning question with regard to the internal treatment of gonorrhea is very effectively aided by the testimonial from one who must be regarded as a discoverer and leader in the domain of the pathology and therapeutics of this disease. And this opinion may be added to that announced by over one hundred physicians with regard to the value of gonosan, the concensus of which is that gonosan alleviates the severe burning pain, and the distressing erections.

Even where vesical inflammation is present, gonosan acts as a sedative to the nerves of the bladder and at once relieves the annoying dysuria. If the dietetic rules are adhered to, the marked astringent and bactericidal action prevents an extension of the inflammatory process to the posterior urethra and thus the usual complications and a prolongation of the disease are avoided. Gonosan is better tolerated than any of the balsamics. It does not disturb the stomach, it is taken without objection, it is not nauseating and does not produce renal irritation. The preparation may be administered for weeks without any bad effects.

The opinion expressed by a large number of observers that internal treatment with gonosan suffices to cure gonorrhea without resort to local measures, is opposed by Neisser, although he admits that in isolated instances this may occur. As already stated, his contention is based on the assumption that none of the balsamics, including gonosan, is capable of destroying the gonococcus or affecting its growth. This, he acknowledges, is claimed neither by those who have reported on its use nor by the manufacturers of the preparation.

Appendicitis.—Burgess (British Medical Journal) reports a series of one hundred consecutive operations for appendicitis. The results are of great interest in connection with the question of early operation in appendicitis and its alleged risks. The cases, forty-five in number, operated upon within four days, yielded no mortality as contrasted with a mortality of twenty per cent. for the fifth day, thirty-three and a third per cent. for the sixth day, twenty per cent. for the seventh day, fourteen per cent. for the second week, and eight per cent. for the third week. These forty-five cases included examples of each of the groups of pathological findings, so that the technique and severity of the operation *per se* was the same as in the latter series. The mortality of the latter, therefore, cannot be ascribed to the operation itself, but is unquestionably due to the inferior condition of the patient at the time the operation was undertaken. The deaths occurred after the operation and in spite of it, but certainly not on account of it. In other words, the mortality which is so often urged against operation in the acute stage really represents the mortality of delay, with the consequent increased toxæmic state of the patient. The lesson to be drawn is not, on account of this mortality, to advise against such operations, but rather to encourage their performance before a stage of serious toxæmia is reached. The series here reported would indicate that, provided operation is undertaken within four days of the onset, the chances of recovery are exceedingly good, and in a previously reported series of forty-seven cases no death occurred after an operation within four days. These results scarcely endorse the view so frequently advanced as to the great danger of operating between the second and fifth days. But even though all these cases recover, yet the earlier the operation the better the recovery. In all the operations within twenty-four hours, and in the majority of those within forty-eight hours the recovery was exactly similar to that after an "internal" operation, without any risk of a weak scar. In most of those on the third and fourth days drainage was necessary, convalescence was more prolonged, and the chances of a weak scar greater. Of the nine deaths in the series five had general peritonitis, two had diffuse peritonitis with gangrene of the cæcum as well as of the appendix, one a local abscess, and a large abscess extending to the subphrenic region. Surely these fatalities may be justly ascribed to delay rather than to operation; the operation certainly failed to save, but it cannot be said to have materially hastened the inevitable end. The great reduction in the mortality after operations for acute appendicitis that has followed the policy of "interfering" at an earlier period points irresistibly to the conclusion that, were all cases submitted to operation in the early stages of the attack, appendicitis would cease to be a fatal disease.

Abortion.—Oliver (Brit. Med. Jour.) defines abortion as the act whereby an immature and non-viable product of conception is dislodged from the maternal body. External hæmorrhage is not only the most important, but the most common premonitory symptom of abortion, and, although it may be induced, atony of the uterus is its most frequent cause. Under such circumstances

it may appear as early as the sixth week of pregnancy, about the time when the serotinal vessels begin to undergo rapid enlargement in response to the stimulation of the placental chorion. Hæmorrhage may also be due to deficiency of calcium and potassium in the muscular substance of the uterus, or to the presence of some toxic material impairing the tone and responsive power of the organ. In such cases potassium iodide and calcium chloride are given to remove deleterious substances or to supply those which are deficient. When the muscular energy of the uterus is impaired, there is often enfeeblement of the nerve energy also, and strychnine, arsenic, digitalis, or phosphorus may be given with benefit. Pain is the other all-important prodromal symptom of abortion. It may be noted when the uterus does not adequately respond to and fails to expand correlatively with the developing ovum. The uterine tissues, again, may be responsive enough, but they may be restrained by adhesions. Abortion not infrequently results from physical or mental shock, or a combination of both influences. After the tenth or twelfth week of pregnancy the uterus may be injured directly by a blow on the lower abdomen, and abortion may more or less quickly ensue. But usually there is extravasation of blood from rupture of the functionally active maternal vessels; the blood may never make its escape externally, and pain may be the only symptom. No drugs should be given in such cases; absolute rest is the best treatment. Necrosis of the amniochorion is a very rare cause of abortion, and it determines this event by allowing the amniotic fluid to escape.

Rectal Feeding.—Moore (Practitioner) holds that rectal feeding amounts at best to a pronounced subnutrition, and that only in exceptional cases, in which the metabolic processes have been gradually reduced to an abnormally low level, is it possible to provide an amount of proteid such as will establish nitrogenous equilibrium and so prevent disintegration of the proteid tissues of the body or of foodstuffs having a total energy value beyond one-quarter of that dissipated by the organism. In the average case, rectal feeding is associated with progressive loss of weight, and at times a subnutrition may proceed to such a degree as to induce a condition of acid intoxication, particularly in the female. It cannot be relied on to effect that improved nutrition desired by the surgeon before operation. It is doubtful whether it secures the absolute functional rest required in certain gastric cases, for, according to Winternitz, rectal feeding is associated with a secretion of gastric juice.

The best results, then, according to the writer, are to be obtained from enemata of predigested proteids, of albumoses or peptones, the two latter in 10 per cent. concentration of emulsified fat in the form of milk or yolk of egg, and of glucose, in 10 per cent. concentration, with the addition of sodium chloride to 1 per cent.

Pericarditis.—West (Brit. Med. Jour.) believes that, in pericarditis, pain may be due to friction or be of cardiac origin. Cardiac pain is rare, and is met with only with acute cardiac dilatation. Friction is the most characteristic sign, and, when present, is conclusive. Cardiac dullness is always increased. One of the earliest signs is said to be such increase toward the left base. The writer considers this due, not to effusion, but to dilatation of the left auricle. The difficulty of diagnosis, even by the most competent diagnosticians, between pericardial effusion and cardiac dilatation is proved by the experience of paracentesis. Systolic recession of the apex-beat is pathognomic of adherent pericardium when present, but the converse is not true. Effusion muffles the heart-sounds, but they may be equally weak from dilatation only. A perverted pulse-respiration ratio is often as marked in acute pericarditis as in acute pneumonia. True pulsus paradoxus is very rare, except with mediastino-pericarditis; however interesting, it is of no practical use in diagnosis. When effusion is large, there may be bulging or prominence of the epigastric region, with pulsation that can be seen and felt, also displacement of the left lobe of the liver.

The writer cannot understand the objection to opium in heart affections. He has used it largely, and has never seen anything but good follow its judicious administration. Paracentesis is rarely necessary in pericardial effusions of rheumatic origin, which are always serious. When effusion is purulent, further procedures will be necessary, but paracentesis must precede incision, for there is no other way of ascertaining the nature of the effusion.

On Non-Flagellate Typhoid Bacilli.

Stephens (Lancet) describes a method for staining flagella with silver which is a modification and simplification of van Ermengem's method. 1. The mordant consists of osmic acid 2 per cent., 1 part; tannin 20 per cent., 2 parts, (ferrous sulphate instead of osmic acid will also give positive results). This is allowed to act for from half an hour to one hour or longer. 2. The silver solution is 0.2 per cent. silver nitrate. 3. Ammonium tannate solution. A quantity in a watch-glass sufficient for staining

one slide is freshly made thus: tannin 20 per cent., 0.2 cubic centimetre; equal parts of strong ammonia and water, 1 cubic centimetre. The sides are cleaned by wiping with a cloth and then heating well on a clean wire gauze over the Bunsen flame. The emulsion is made by plunging the culture below the surface of the water in a small test-tube and allowing it gradually to dissolve off. The emulsion is made faintly milky. With a pipette the cool slides are flooded with the emulsion and then allowed to drain off. When dry the slides are put in the mordant for from half an hour to one hour. They are then washed with water. To stain, a few drops of silver are put on the slide and then a few drops of ammonium tannate and the slide is rocked to and fro for a few minutes. Then wash in water and repeat the staining three or four times. The author had used this method for some time and had constantly got positive results with it, so that he felt secure in describing it last year. Shortly after having done so he was much surprised at being unable to stain flagella in a culture of typhoid bacilli which he had used for demonstrating the method. At first he thought that the method must, after all, be uncertain in spite of previous constant successes, and it was only after a considerable time that he began to suspect the cultures. Three different strains of typhoid bacilli all gave no result. He had not a single success in many months of trials. He eventually examined these cultures in a hanging drop and found that none exhibited the characteristic active movements of typhoid bacilli but they only showed slight trembling movements. He found on consulting the most recent literature that this loss of motility was a recognized fact but he could find no statement that this was associated with a loss of flagella. It seemed to him possible that this was the cause of the failures. He procured consequently a fresh stain of typhoid bacilli recently isolated from a patient. (His previous cultures had all been very old laboratory stains). This showed typical motility and on proceeding to stain it with the method he had been using for months without success the result was at once positive. He thought therefore he was justified in concluding that failure to stain the old cultures was due to the fact that there were no flagella there to stain. He took further one of these cultures and passed it through a guinea-pig and isolated the bacillus from the heart's blood. The bacillus was now motile and gave the cultural characters of typhoid. He was able at the first and at all subsequent attempts to show that it now possessed flagella (the old culture still remains negative). He believes then that he is justified in concluding that we may have non-flagellate typhoid bacilli.

The bearings of this observation may be of interest. 1. It may be necessary to pass a bacillus—*e.g.*, bacillus dysenteria (Shiga)—through an animal or to examine freshly isolated bacillus before we can be quite certain that they do not normally possess flagella. 2. The typhoid bacilli which were examined above and which I believe do not possess flagella were said to "react normally" in typhoid agglutination tests. If this was so then flagella cannot be an essential factor in this phenomenon.

For detecting flagella it is simplest to make a smear of the culture with a thin glass filament in the same way as a blood film, a trace of water being used for dilution. These smears when stained show the presence of flagella beautifully.

Oxaluria.

Toepfer (Wien. klin. Vortrage aus d. Gesam. prak. Heilk.) discusses at length the theories and clinical facts in connection with oxaluria. The symptoms described by different authors as accompanying the presence of calcium oxalate in the urine give no clear idea of what state is indicated by the term oxaluria. Cantani, indeed, has drawn a comprehensive picture; but by far the greater number of observers report cases in which no such nervous symptoms as he describes accompany oxaluria, and there is no experimental evidence to connect the nervous symptoms and the oxaluria. To discover to what extent oxaluria was present in patients suffering from other diseases and how far it was merely the result of a particular diet, investigations were made on hospital patients; it was found that calcium oxalate was present in the urine of not more than five to six per cent. of the patients, and that if present the amount was not increased by the ingestion of any vegetable rich in oxalic acid. It cannot, however, be denied that oxaluria may in a few cases result from the administration of oxalic acid, although in the vast majority it must follow some absorption or assimilative anomaly. It has never been definitely connected with any recognized pathological factor, such as fever, anomalies or circulation, new growth, or infective processes, nor with any affections of a particular organ. Although clinically the condition may appear to depend on retarded or disturbed metabolism, there are many theoretical objections to the proposition.

Some investigators deny the possibility of the oxidization of oxalic acid within the body, and if such a possibility be allowed the amount of oxalic acid found in the

urine is so small compared with the whole amount of carbon taken in that its presence can hardly depend upon a defect of the metabolism of the body as a whole. It is also to be remembered that metabolism, while dependent in part on the amount of oxidization, depends also on the nature of the molecular formation of the food substances. There can be no doubt that an excess of lime in the diet—as when methylglycol or glycocol is given—leads to oxaluria; but this fact is obviously capable of the interpretation either that oxaluric patients take in too much lime or that the metabolism of oxaluric patients with respect to lime is abnormal. To explain the presence of nervous symptoms in some cases of oxaluria and their absence in others, we must suppose either that oxaluria is merely a prominent side-effect of an unrecognized pathological change on which, and not on the presence or absence of oxaluria, the irritation symptoms depend; or that the oxaluria is the cause of the nervous symptoms, but can cause them only when there is some local nervous defect or lowered resistance.

The author would limit the name of oxaluria to those forms of illness in which, independently of ingested oxalic acid, there is an increase above the normal in the output of calcium oxalate, and in which clinical observation shows that the symptoms of the illness or a distinct increase in their severity date from the time when oxalate of lime appeared in the urine. To account for the different diet found useful in the different cases, two theories may be advanced. One is that oxal ria leads to different results in different types of constitution, and thus in diabetic patients a purely meat diet does good; while in "uratic" patients meat should be altogether withdrawn. Or it may be that we have to do not with an abnormal cell metabolism, but with abnormal changes of food stuffs in the intestinal canal, the changes affecting in some cases the proteids, in others the carbohydrates. In all cases digestion should be aided in every way, and fresh air, exercise, massage, etc., are indicated. The only cases in which foods containing oxalic acid should be forbidden are those to which there is a marked tendency to the formation of calcium oxalate stones.

The Treatment of Serous Effusions.

Barr (Brit. Med. Jour.) describes what is evidently a new method of treating serous effusions. He injected one fluid drachm of adrenalin chlorid solution into the pleural sac, in a case of abdominal cancer extending to the pleura, after aspiration of a large quantity of bloody serum, the object of the injection being to lessen the secretion. There was no further secretion, consequently no further tapping and the patient spent the remainder of her life in perfect comfort so far as her chest was concerned.

This treatment was extended also to cases of ascites due to hepatic cirrhosis in which marked results were not expected. However, the rapidity of secretion was diminished and no ill effects were noted. The quantity of adrenalin solution used varied from two to three fluid drachms.

In a case of pericarditis with effusion, in a lad, nineteen fluid ounces of serum was withdrawn from the pericardium, but a reaccumulation rapidly followed. The patient's condition becoming critical, the paracentesis was repeated, twenty ounces of fluid being withdrawn with immediate improvement in the quality of the pulse. Forty minims of solution adrenalin chlorid, 1-1000, was injected into the pericardium. The pulse at the wrist disappeared, the boy became of an ashy leaden hue and had an anxious expression. Immediately nitroglycerin and atropin were administered and the boy quickly rallied. No further tapping was required. The same patient had a subsequent attack of left pleurisy with effusion. Ten fluid ounces of serum was withdrawn from the chest and one fluid drachm of adrenalin chlorid solution was injected. There was no reaccumulation.

In a case of tuberculous peritonitis and ascites 200 fluid ounces of serum was drawn and two fluid drachms of solution adrenalin chlorid introduced into the peritoneal cavity, with four pints of aseptic air (to prevent adhesions). Thirteen days later 237 fluid ounces of serum was withdrawn and two fluid drachms of adrenalin chlorid solution and two pints of air were injected. Upon a third occasion, eleven days later, 196 fluid ounces of serum was obtained by tapping, and three fluid drachms of adrenalin chlorid solution and four pints of sterile air were injected. No reaccumulation of fluid occurred.

In a female child of seven years, one pint of fluid was withdrawn from the pleural cavity and one fluid drachm of adrenalin chlorid solution and half a pint of sterile air were injected. Though it was highly probable that the pleurisy was tuberculous there was no reaccumulation of fluid and the patient recovered.

Rheumatoid Arthritis.

Clark (The Scottish Medical and Surgical Journal) has observed a considerable number of cases of rheumatoid arthritis in different stages of the disease. She thinks that the opinion that rheumatoid arthritis owes its origin to some lesion of the nerves

cannot be held. The bacterial theory is also improbable, because no specific organism, present in all cases, has been discovered. But she is of the opinion that it is of organismal origin, the organisms having their seat in some organ, where they evolve toxines, which are thrown into the blood stream. She has found definite changes in the spleen, liver, kidney, pancreas, skin, ovary, stomach, and bladder. In the spleen the most prominent histological change was found in thickening of the walls of the central artery of the Malpighian body, this thickening being of the nature of a hyaline degeneration. The capsule and trabeculæ were also more or less thickened with dilatation of the sinuses of the pulp and some thickening of walls. In the liver there was increased connective tissue in the portal tract, with thickening of the walls of ducts and vessels. The principal changes in the didney were apparently primarily arterial, and the new tissue had undergone hyaline degeneration. In some part the glomerulus was markedly hyaline. Bowman's capsule frequently showed fibrous thickening, and throughout the organs, particularly along the vessels, were localized patches of fibrous connective tissue. In the pancreas the pathological changes were even more marked, increase of connective tissue throughout the organ being very extensive. There was degeneration of the parenchyma, and hyaline thickening of the vessels and ducts, with a proliferation of their lining epithelium. In the skin sections there were present atrophy of epithelium, glands, and hair follicles, increase of fibrous tissue in the cutis vera, with hyaline degeneration in the deeper layers. The ovary showed little abnormality, except in the greatly thickened vessels, the coats of which were markedly hyaline. In one case, the almost total absence of germinal epithelium and follicles was noticeable, also extensive fibrosis, and thickening of the hyaline vessels. The hollow organs, stomach and bladder, were to the naked eye markedly thickened, this change being principally in the muscular coat. Amongst these pathological changes, perhaps the most remarkable are those described in connection with the skin, changes which are evidently widespread. It is difficult to account for these otherwise than on the ground of an apparently specific neuropathic origin, and probably, in addition, they may partly result directly from the arterial changes. These arterial changes, being so widespread throughout the body, can only be explained by the circulation of some chronic irritant in the blood stream, which, in its course, involves joints as well as organs. The author is therefore of the opinion that the joint changes are merely symptomatic and that they are only part of a general chronic toxæmia.

The Treatment of Muoomembranous Colitis.

Krng (Scottish Medical and Surgical Journal) states that dietetics undoubtedly form an important factor in treatment. At the present time German physicians favor a diet rich in cellulose material, leaving a large residue, while French physicians are in favor of one leaving as little residue as possible. Germain See states that there ought to be no special restrictions in the dietary—eggs (cooked rather hard), milk, ham, water, and tea *ad libitum*, potatoes, rice, game, etc., may be taken, avoiding fruit, alcohol, effervescing waters, red and white wines. It is noteworthy that Langenhagen states that green vegetables appear in the stools almost unchanged, and that fats also are hardly ever digested. Hence Germain see excludes fats and vegetables from the dietary. Hale-White gives a simple mixed diet—*i.e.*, plenty of fish, meats, eggs, milk pudding, corn-flour, infants' food, buttered toast, bread and milk. He states that he has not seen any good follow a diet of a large amount of indigestible vegetable material. Von Noorden advocates a coarse cellulose diet, especially bread in large quantity combined with excess of butter, cream, and milk—one leaving a large residue. This dietary is the main feature in his method of treatment. His researches are certainly well worthy of careful attention.

As far as drugs are concerned, there is almost a unanimous opinion at the present time amongst those experienced in the treatment of this affection that there is no specific remedy, although many of them are of considerable value if judiciously administered; in fact much harm is done and valuable time wasted in their almost exclusive and injudicious use, and this applies with special emphasis to the so-called intestinal antiseptics (salol, B-naphthol, etc.). The drugs which have been considered of value are belladonna, strychnine, hydrastin, hyoscyamus, cannabis indica, ergotin, salol, B-naphthol, and the salicylates. With the exception of the former two, which, if properly administered, may be of assistance in the relief of the constipation, the others may be considered useless and often harmful.

The author holds that in any ordinary simple case, and occasionally it may be in some others as well, especially if they are treated at an early stage, many of the various methods of treatment now in vogue, if carried out efficiently, might give an almost equally good immediate result. The num-

erous literary contributions prove this to be the case. The question arises, What becomes of many of these in the course of a few years? As one would expect, statistics remain silent on this point. Experience, however, teaches us that a large number relapse. It is also to be borne in mind in this connection that many of the cases which are diagnosed and treated as such are not those of true mucomembranous colitis at all, but are examples of the effects of chronic constipation pure and simple, which are decidedly more amenable to such treatment.

It may be stated that the great object of treatment should be directed toward bringing about such a condition of the large intestine as to give rise to a normal response to fecal stimulation, and consequently a normal condition of peristalsis, at the same time employing measures direct or indirect toward the highest improvement in the patient's general condition, and to the amelioration or removal of the neurotic condition. As to the treatment of the intestinal condition from a dietetic point of view, if we regard it as of a traumatic inflammatory nature it might be said that foods leaving a large residue would aggravate and intensify it, and so give rise to diarrhea. Practical experience, however, tells us that this is not so. This result has been pointed to as a proof that the intestinal condition from a dietetic point of. The author does not believe that any such conclusion can be drawn. It must be remembered that we are not dealing with a specific infective inflammation, but with a low traumatic one on a mucous surface. As formerly pointed out, we may have all the symptoms of intestinal catarrh present during life, and nothing found in the intestine post mortem to account for them, and also we may have ulceration in the colon, with no diarrhea or even other ordinary symptoms indicative of its presence.

Cancer of the Cervix and Pregnancy.—Grimoud (Gaz. des Hop.) states that pregnancy aggravates the disease when cancer of the cervix is present, especially in young women, and the progress of the disease becomes very rapid. Its malignancy is in inverse proportion to the vitality of the tissues invaded. The symptoms are more marked than in other cancers of the womb. The pain is at once increased by pregnancy, irradiating in all directions and being very acute. Hemorrhages occur early in the course of the disease, and are of increased amount, endangering the lives of mother and child. Leucorrhea is not a marked sign. Abortions are frequent at about the third month, and premature labors at the seventh month. The nearer the cancer is to the os the more frequent are abortions. The mortality of the child is increased. Labor influences unfavorably the growth of the cancer on account of the friction and pressure of the fetus on the growth; because of the danger of infection; and owing to the obstruction presented by the cancer of delivery, thus increasing danger of hemorrhage, gangrene, fissures, rupture of the uterus, and violent hemorrhage. Labor is generally natural when term is reached, although in some cases there is obstruction to delivery by the growth, and labor is thus prolonged. Uterine inertia is frequent and the organ dilates slowly, having lost its elasticity. About 50 per cent. of the children are born dead. The puerperal condition is most unfavorable on account of the dangers of infection and of hemorrhage. The disease is early propagated to the parametrium, board ligaments, bladder and rectum. When recognized early in pregnancy and the growth is not extensive, operation is demanded, the entire pelvic contents being removed.

Arrest of Hemorrhage After Labor.—Brock (Practitioner) says that for those who maintain that postpartum hemorrhage is arrested by the compression of arteries and veins alike, somewhere in the muscular coat, with formation of extensive thrombi, the extreme rarity of embolism, during the puerperium, must be a staggering fact, especially if they recollect that, for some time after labor, the uterus, by alternately contracting and relaxing, would seem to be doing its best to encourage such an accident. The clinical features of a postpartum flooding leave no doubt in the writer's mind that the bleeding is venous. The blood from the huge maternal sinuses is carried to the inferior vena cava by large veins which are valveless. Unless the mouths of the sinuses are securely folded together, regurgitation must result. The treatment of mild cases of postpartum hemorrhage is throughly agreed upon. That of serious postpartum hemorrhage resolves itself into the treatment of regurgitant venous hemorrhage; the extreme gravity of which depends on the fact that the blood, which is pouring into the uterus, is regurgitating from the inferior vena cava through valveless veins. Its correct treatment, therefore, must be carried out one of two methods: (1) either by applying direct pressure to the bleeding sinuses, by introducing one hand closed into the vagina, while, with the other, the fundus of the uterus is pressed down on to it through the abdominal wall; or (2) elevating the pelvis and compressing, not the aorta, but the inferior vena cava, by pre-

cisely the same maneuver. It is the writer's opinion that the method for arresting postpartum hemorrhage by compression of the aorta, depends for its success on compressing, not the aorta, but the inferior vena cava, and thus stopping the backwash of blood from the latter.

Instrumental Perforation of the Uterus During Abortion. Orthmann (Berl. Klin. Woch.) describes three cases of perforation of the uterus with injuries of the intestines which he has observed after abortion. Of these he gives the histories. In one there was only a slight lesion of the intestine and a tearing of the mesentery by the abortion forceps of Winter. Twenty hours later a celiotomy was done and the intestine closed. The uterus and left tube were resected. Six years later the patient underwent a normal pregnancy with delivery by version, premature labor having been induced four weeks before term on account of a contracted pelvis. In the second case the intestine was adherent to the uterine fundus. The intestine was torn for a distance of six or seven centimeters. A resection of the intestine and an amputation of the fundus was done and the patient recovered. In the third case the tear was made by a dull curette and the uterus was severely torn as well as the intestine. Resection of the intestine and total extirpation of the uterus were necessary. The patient died of peritonitis four days later. The author gives the causes os these perforations thus: Pathological condition of the uterus due to inflammatory lesions, in some of which the uterus becomes as soft as butter, the use of improper or dangerous instruments, failures in technic in the removal of the ovum and its envelopes. This comes from the practice of young inexperienced men attending patients in abortion when they have never seen an abortion property treated. Even when the uterus has been perforated, if the instruments were aseptic and the repair is immediate the conition is not dangerous. All sharp and small pointed instruments should be discarded in treating a patient during abortion. The canal should be dilated before instruments are used. The fingers are the least dangerous instruments when used in such cases. When an instrument must be used, as sometimes happens, the best is a wide, blunt spoon for separating the membranes. A careful examination of the uterus should be made before any aperation is undertaken. The position of the fundus should be ascertained by the use of the sound. The abortion forceps should be used only to remove loose portions of membranes. Dilatation of the cervix should be done after the third month of pregnancy.

Rupture of the Umbilical Cord During Labor. - Forssell (Arch. f. Gyn.) states that we may have a partial or a total rupture of the umbilical cord during labor. It may occur as a result of the rupture of varices in the cord with the production of a hematoma of the umbilicus. There may be rupture of some of the vessels of the cord with an outflow of blood into the amniotic cavity or a velamentous insertion of the cord may be ruptured. An entire rupture of all parts of the cord is less frequent. It occurs more frequently in precipitate labors than in any others. In 273 precipitate labors Klien found rupture in 133 cases. The weight of the fetus may produce multiple lesions of the vessels of the cord, and the ends of the ruptured cord may be clean-cut as with a knife. In operative births, especially where the cord is abnormally short, ruptures of the cord are also more frequent. The cord may be wound around some of the members of the fetus and thus the same effect result as if it were short. Some authors believe that syphilis is a predisposing cause of the lack of elasticity which belongs to those ruptured cords. In the author's case there was no symptom of syphilis in either mother or child at any time, and the child lived for some years after its birth. The author believes that the rupture comes as a result of a defiency in the elasticity of the cord. There are elastic fibers in the walls of the blood-vessels in the normal cord. These seem to be reduced in number in the cords that rupture. The normal cord may be stretched to one-third more than its ordinary length by weights applied slowly.

Ophthalmoblenorrhea of the New-born Contracted in the Uterus—Helzbach (Monatschrift f. Geb. u. Gyn.) tells us that not all cases of gonorrheal ophthalmia are contracted during or after birth. There are many authentic cases on record in which the discharge and other eye symptoms were present at the time of birth. He describes a case which was treated by him in which the infant was born with a purulent discharge from each eye and ulcerations of the cornea. Stillborn children have also shown these changes. This lesion is generally accompained by the discharge of a bad-smelling amniotic fluid, showing that this fluid was infected. The high temperature of the genital canal favors the development of the germs. When the membranes have ruptured in case of a long labor the germs may ascend into the fetal envelopes and infect the child. Prophylactic treatment of the eyes of the new-born becomes of added importance in the light of these possible conditions.

Treatment of Fibroids Complicated by Pregnancy.

Hardouin (Arch. Gen. de Chir.) after describing a case of obstruction of the pelvic cavity by a fibroid in the anterior wall of the uterus, which necessitated an operation for enucleation, followed by recovery and the birth of the child at term, goes on to state that it is not always necessary to operate on patients who have fibroids when pregnancy occurs. In many cases the fibroid is so placed that the pregnancy can continue without interruption and no obstruction to labor will occur. Torsion of the pedicle of the tumor or an intraperitoneal polypus will necessitate immediate operation. Suppuration of the fibroid and compression of other pelvic organs are the other dangerous symptoms. Abortion for uterine fibroids is no longer considered justifiable, since the mortality has been excessive. Myomectomy is relatively without danger. Hemostasis is difficult but it can be accomplished. The possibility of producing abortion is not great since the uterus is tolerant to a great degree. The enucleation of the growth produces a dissociation, not a section of the uterine fibers and the opening is easily closed so as not to weaken the uterine wall. Myomectomy may be considered the operation of choice, being without danger for mother or child. Hysterectomy may be necessitated, abdominal or vaginal. If it becomes impossible to enucleate the tumor hysterectomy must follow a laparotomy. Another important question is whether we should discourage marriage in virgins who have fibroids. The author believes that we should encourage them to have the tumor removed before marriage. During labor spontaneous birth may be awaited if there is no dangerous symptom and the fibroma is high up. If it partly closes the pelvis an attempt may be made to crowd the growth upward above the symphysis. If this is impossible a Cesarean section must be done, generally followed by a supravaginal hysterectomy.

Hemorrhage from Varicose Veins of the Vagina in Pregnancy.

Grunebaum (Munch Med. Woch.) states that varicose veins of the vagina are quite frequent in pregnancy. The veins become increased in length as well as in width and become tortuous. They are found in from 25 to 75 per cent. of all pregnant women according to different authors. The cause of the varicosities is primarily the pressure of the gravid uterus on the hypogastric and iliac veins. Over-filling of the large intestine through constipation is also an important factor in producing this trouble. The upright position in standing and working is a third factor. We must add an individual predisposition by weak-walled veins. These varices produce serious and even fatal bleeding at the time of labor. The author describes three cases of hemorrhage in labor observed by himself. The indication is to empty the uterus as soon as possible when hemorrhage occurs, since it cannot be controlled. When the physician has found such varices in the vagina the patient should be made acquainted with the danger of bleeding, and should be instructed how to make pressure on the varix with wadding should hemorrhage occur when a physician cannot be reached easily.

Spinal Analgesia.

Barker, (British Medical Journal) working with an injection compound much heavier than the cerebrospinal fluid, has obtained the following results: 1. The highest analgesias were obtained with the patient lying quietly on the side before and after injection. 2. The lowest analgesias were found after puncture in the sitting position, with subsequent change to the lying. 3. It was not found necessary to elevate into the Trendelenburg position with the head low at all, and it is unnecessary, if not positively dangerous. Further, this position becomes unnecessary for the convenience of operating, as the abdominal walls are so relaxed that manipulation within the peritoæum becomes easy. 4. The best results as to high analgesias and absence of after effects were found where the level of the body had not been altered after injection, and consequently the cerebrospinal fluid has been kept in a state of rest. The volume of the injected compound was about one c.c. The anæsthetic used was stovaine in a five per cent. solution of glucuse in water. The specific gravity of the solution is 1.0230, as compared with 1.0070 of the cerebrospinal fluid. No adrenal derivative of any kind was used, and it is suggested that some of the ill effects reported may have been due to the adrenal principle employed and not to the anæsthetic drug at all.

Suboccipital Inflammation.

Grunwald (Berliner Klinische Wochenschrift) adds another case to those reported in the first part of his paper and then presents the following conclusions: 1. Suboccipital inflammation is dependent not only on tuberculosis of the occiput and vertebra, but may be induced by other inflammatory processes, such as diseases of the ear, traumatic diseases of the base of the skull, particularly diseases of the accessory sinuses, also of the teeth, and finally syphilis. 2. The suppuration calls forth various symptoms according to the course

which it takes and the organs it involves, but under all circumstances it causes certain typical symptoms. 3. Among the most marked, or at least most important, of such symptoms should be mentioned the more or less extensive opisthotonos together with the early commencement of the pains localized in the region of the trigeminus or occipitalis as particularly characteristic. It is, therefore, to be recommended, without going further into the nomenclature, to unite all these processes under the title of suboccipital inflammations and to consider more closely only the origin and course. 4. In the late stage the infiltrate in the nape of the neck points to the seat of the inflammation. Perforation into the retropharyngeal space is less characteristic. 5. The original focus can be recognized often only from the course of the symptoms as regards time and place, because one and the same localization can have either primary or secondary importance. The focus may remain latent for a long time. 6. The closest attention should be paid to symptoms of perforation, sudden diminution of the pain, of the fever, and the motor disturbances, because these correspond to the extension to a larger region of the hitherto closely circumscribed process, and so in any given case point out the final moment when, by an immediate operation, an unlooked for or even fatal result may be avoided. 7. A careful study of the temperature is particularly useful not only to watch the course but also to enable us to recognize this critical moment in which the extension commences. 8. Before the development of marked suppuration the attempt is justified to secure a retrogression of the process by absolute fixation of the head.

Morbid Pregnancies.

Ballentyne (British Medical Journal) advocates the establishment of what he calls "prematernity" beds in maternity hospitals, which beds should be strictly reserved for the reception of cases of morbid pregnancies. Such beds should be placed in a ward by themselves and should be in charge of a nurse or nurses who have had surgical and medical as well as obstetrical experience. Special attention should be paid to urine analysis, to examination of the blood and nervous system, to ophthalmoscopic investigations, and to a detailed and thorough examination of the signs and symptoms of pregnancy, including estimations and descriptions of the fœtal heart and of the fœtal movements. Suitable cases for treatment in prematernity beds are pregnant patients suffering from albuminuria, heart disease, intractable vomiting, pulmonary disease, hepatic disease, anæmia and other blood disorders, and various nervous maladies, especially epilepsy, hysteroepilepsy, hysteria, chorea gravidarum, and paralysis. Diseases of the reproductive organs themselves, such as retroversion of the gravid uterus, threatened abortion, pruritus and œdema vulvæ, uterine prolapse, cystocele, vulvar inflammation and abscess, uterine myomata as complications of pregnancy, and suspected ectopic gestation, might all very properly be treated in prematernity beds. The same is true of hydramnies and overdistention of the uterus (twins), and suspected cases of hydatid mole, placental hæmorrhage, missed abortion, or antenatal death or deformity. Further patients who have suffered in past pregnancies from "habitual" abortion, "habitual" fœtal death or disease, "habitual" prematurity or postmaturity, or from eclampsia, might there be suitably treated in order, if possible, to prevent the recurrence of these reproductive disasters. Cases unsuitable for treatment in such a prematernity bed are those of infectious fevers (scarlet fever, measles, typhoid, erysipelas) occurring as complications of pregnancy, and those of insanity in pregnancy. It is doubtful whether cases of syphilis should be dealt with, but patients suffering from gonorrhœal vaginitis and vulvitis might be taken in and treated during their pregnancies. Alcoholism and dipsomania in pregnant women might be regarded as suitable for treatment, but actual delirium tremens should find a home elsewhere until the acute stage has passed off.

Bacilluria in Childhood.

Box (Lancet) classifies infections of the urinary tract in children as (1) descending infections, (2) ascending infections, and (3) infections by contiguity. Descending infection is synonymous with infection carried to the kidney by the blood stream, and is therefore termed "hæmatogenous." But, while descending invasion does undoubtedly occur, yet the common cause of bacilluria in children is an ascending infection. The commonest form is that which is due to the colon bacillus. Although the disease may occur in males, it is much more common in females, which is strong corroborative evidence of its ascending character, for the shortness of the female urethra and the proximity of its orifice to the anus render infection easy. In babies infection through the urethra may occur from soiled napkins or from the passage of stools over the vulva. Infection of the urinary passages in childhood may manifest itself as pyelitis, cystitis, or incontinence of urine without obtrusive evidence of local inflammation. Pyelitis may occur as a febrile affection with sud-

den onset, chills, and pyrexia. When the course of the disease is protracted emaciation rapidly occurs. Enlargement of the spleen may often be detected, and sweating may be pronounced. As a rule, the local manifestations of the disease are unilateral, and the right kidney is more apt to be affected than the left. Slight vulvitis is present in some cases. Incontinence of urine is often associated with bacilluria, and the organism present is almost invariably the colon bacillus. The reaction of the urine is generally faintly acid, never alkaline. The prognosis of these colon infections must be guarded, as they may drag on for months. Frequent bathing and the avoidance of urethral contamination from the anus are important preventive measures. Full doses of potassium citrate combined with the sedatives of the belladonna group often act well, but belladonna is disappointing in inveterate cases. The writer has tried antibacillus coli serum in two cases of incontinence. In one the serum stopped the incontinence, though the bacilluria persisted. In the other the serum had no effect.

Double Harelip—New Operation.

Lorenz (Deutsche Zeitschrift fur Chirurgie) has devised a new procedure, which he describes in detail with the aid of diagrams and photographs of his patient, a girl of ten years, whose deformity was most extreme.

In cases of double harelip the premaxillary bone is never united to the maxillary proper, and is therefore loose and not of any use in mastication. It is claimed, however, that if this bone is removed the upper set of teeth will be smaller than the lower, and proper apposition of the jaws will be impossible. Attempts have been made in many cases to place the premaxillary bone in its normal relation to the maxilla, but as there is no septum narium cutaneum, this operation draws the tip of the nose back against the upper lip and produces an extreme deformity. In spite of all efforts the premaxillary remains loose, and the tension of the upper lip, the ends of which must be brought together in front of it, draws it too far back and produces a deformity quite as marked as that caused by removing it. Some surgeons remove a wedge-shaped piece from the lower lip and implant it in the upper, but this makes a very ugly scar in each lip. The results of these methods are good only in mild cases. The objection that the removal of the premaxillary makes the upper jaw smaller than the lower is not well founded, and nothing is lost as regards chewing, as the loose bone is of less use than a prothesis. The tendency of the upper lip to stand behind the lower is due to too much tension on the lip after bringing the halves together. This extreme tension may be avoided by freeing the tissues of the cheek from the underlying bone. The requirements of an operation are that it shall restore the failing septum cutaneum and reduce the external scarring to a minimum. Deformity is best avoided by cutting the alæ of the nose free from the cheek and replacing each separately.

The case in question showed a small and rudimentary premaxillary, with two misplaced carious teeth. This protruded like a snout, and the central part of the lip was directly continuous with the tip of the nose. The lip-red at the side also passed directly into the alæ nasi, which were drawn outward. The bilateral cleft in the palate was unusually broad, and the palate very high arched. Union of the halves of the lip in front of the premaxillary was out of the question.

The following operation was performed: The premaxillary was removed with strong bone forceps and the anterior edge of the vomer was freshened. Then the central part of the upper lip was freed and split between the skin and the mucosa, so that a narrow strip of tissue, attached by its front end to the tip of the nose, and consisting first of skin, then of lip-red, and lastly of mucosa, was obtained. This was drawn back and attached to the edge of the vomer, forming a septum cutaneum, and then passing between the halves of the lip was sewed to the alveolus, and closed the gap left by the removal of the premaxillary. The alæ of the nose were then freed from the cheek by an incision down to the bone, and the lips freed from the bone from the alveolus to the orbit. The parts could then be brought together in the middle line with no tension. The free edges were trimmed and united. The alæ of the nose were then brought into proper position and fixed to the cheek tissues in their new position. The shape of the nose was better than before the operation. This left a small opening on each side, between the lip and the septum, passing directly into the mouth. The edges of these openings were freshened on the twenty-first day and the defect closed. Union was by first intention without scar contracture. An operation to close the palate failed. When a prothesis was made, this closed the opening in the roof of the mouth, supplied the missing front teeth, and pushed the upper lip a little forward. The cosmetic result was remarkably good. The scars were not noticeable and the nose was properly formed, the tip not being drawn backward at all.

The Treatment of Cardiac Dilatation.

Duckworth (Lancet) says that the main indications for treatment are first to promote the power of the heart walls, and secondly to relieve the venous engorgement which has arisen from their loss of function. The more depressing duty is to unload the venous system. The question of depletion by letting blood has first to be considered, and the general condition of the patient as to strength, age, and history of the cardiac ailment will determine our action in this respect. It is seldom that we can be justified in a general venesection from the arm, unless it be in small amount, say to the extent of six or eight ounces. We shall oftener do well to limit our direct bleeding to the application of six or eight leeches to the epigastric or hepatic regions. This may not secure more than two or three ounces of blood, but the process of leeching, now so much neglected, is a source of more relief and comfort than the mere amount of depletion would indicate. There is a marked counter-irritant action induced by leeching which has, doubtless, some beneficial effect. Certainly the relief thus afforded is very marked, the pain, tumidity, and oppression being greatly dispelled. A poultice should be placed over the leech-bites, and while this encourages further depletion it induces a favorable hyperemia over a large surface.

We may next try to relieve the hepatic congestion further by such purgation as the particular patient can bear with impunity, and in this way help to relieve the general systemic venous engorgement. By far the best purgative here is mercury in some form. To urge bleeding and the use of mercury in these days may appear to some as a revival of old and effete practices. We are supposed, especially by the public, to have abolished all such methods now and to employ simpler and better ones. Such treatment is thought to be weakening and blood to be too precious to shed in the twentieth century. In the opinion of the author this is nonsense, and not to employ such measures is to be void of all wise clinical instinct, and to be deprived of the only real methods of affording relief to our patients. It is hard enough now to implant this knowledge in the mind of modern students. Their minds are so full of imparted ideas about toxins, microbes, opsonic indices, neurons, and extra-pharmacopœial remedies that there is no room to hold precious knowledge of approved clinical methods and of the virtues of pharmacopœial drugs, and with all this modern development we are fast losing the old-fashioned art of medicine and have too little teaching of it in the schools.

The action of mercury is not merely a purgative one, but it is the best agent for lowering the resistance so commonly existing in these cases in the arterioles and capillaries, and thereby relieving the labor of the cardiac wall which is exhausting them. The sources of this obstruction probably lie in the liver or alimentary canal and are cleared away by mercurial influence. Calomel, blue pill, or gray powder (with colycynth and henbane), in doses of from two to five grains, should be given at once over night, followed by a saline aperient in the morning, and repeated for one or two nights, subsequently being taken twice or thrice a week according to the effect produced. The author makes no mention so far of digitalis or other tonic for the laboring heart, as he regards these as not being the primary needs. Relief will be already largely afforded in all directions by the treatment, and we may then begin with Baillie's well-known combination of blue pill, squills, and digitalis. By day we may give tincture of digitalis with nux vomica, ammonia, and compound spirit of ether in mixture.

The dietary is important. It should be rather dry if it can be borne. Small feeds every three or four hours with solid or semi-solid food are best. Much fluid with the meal is objectionable, oppressing the stomach and the heart. Between meals the patient may take coffee, if possible, and fresh lemonade containing bitartrate of potassium one drachm to the pint. This is especially useful in removing any dropsy. If solid food is loathed we may use beef essence or jelly, or fish, pounded meats, scraped ham or chicken, or milky pudding in small quantities. Alcohol is commonly necessary, old brandy being the best form in which to give it. It is seldom necessary to exceed two to four ounces in the twenty-four hours. Two ounces of cold or hot water or of some alkaline water may be given at intervals if there is much thirst, and a larger quantity of hot water early in the morning is useful to wash out the alimentary canal and to promote a more free diuresis, which should be looked for. When the heart is relieved we generally find a more free urinary flow to occur. Later we may employ iron with strychnine or phosphoric acid with nux vomica as appropriate tonics. Ascites, if urgent, may demand tapping, and extreme edema of the legs, if it does not yield to the remedies just mentioned, must be dealt with by Southey's trocar, careful aseptic precautions being always observed. It may take several hours to relieve the abdomen by this method, but it is the safest one to adopt. There is often difficulty in securing adequate rest and sleep at night. Recumbency is seldom possible, and if prop-

ping up by pillows is not adequate to secure easy respiration the patient is better allowed to sit in a properly adapted chair with support for the arms and a rest arranged for the head to lean somewhat forward. A full dose of compound spirit of ether, with 10 or 15 minims of a solution of morphine hydrochloride, may prove very soothing in the worst forms of restlessness and insomnia with dyspnea.

Under the influence of these measures it is often remarkable how much improvement may be wrought in these distressing conditions. Yet the patient is always in danger of relapses unless he is extremely prudent in all particulars. In hospital patients we see the worst symptoms in such cases. They secure marked relief, but a return to work or exposure to unwholesome environment and the varieties of the *res augusta* of the poor soon induce a recurrence of the original symptoms, and they return to die. For the better placed in society we may hope for a happier outcome with continued skilled supervision of their daily lives. But in them a time arrives when the measures we have enjoined fail to bring relief—the myocardium is worn out, recuperation is at an end, and a fatal issue is inevitable.

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The Application of Pure Ichthyol in Gonorrheal Epididymitis.

Philip (Muench. med. Woch.) has had good results with the following method in treating gonorrhoeic epididymitis:

During the acute stage the patient is kept in bed, the scrotum is raised, and cold applications are applied. In very mild cases where the patient cannot stop working, a Langlebert suspensory with Preissnitz application are ordered from the very outset.

After four to seven days the acute symptoms, fever, swelling and tenderness, abate. The gonorrhoeic inflammation rarely has a tendency to suppuration, but soon passes to the subacute and chronic stage. The chronic inflammation is characterized by the presence of much connective tissue. Clinically, there are frequent recurrences and often neuralgic pains. At rest, there may be no pain, but if the patient is up and about for a protracted period there may be another acute attack after weeks or months, so that the patient may be unable to work for a long time. The infiltration is often not completely absorbed, so that a circumscribed, dense nodule will remain in the epididymis.

Since this process closely resembles other chronic inflammations, particularly synovitis crepitans, pure ichthyol was tried in a large number of cases. The method of application was as follows: The diseased half of the scrotum, including the skin over the cord up to and beyond the inguinal ring, are painted liberally with pure ichthyol and then covered with a moderately thick, folded piece of cotton. The usual snugly fitting suspensory is then applied. Since the skin over the cord and that of the scrotum form a firm sheath, a dragging of the testicle with the diseased epididymis is impossible. It is sufficient to cut short the hairs over the scrotum; shaving is not necessary.

After four to five days the bandage is dissolved off with warm water and a new one applied.

In this affection ichthyol again demonstrated its properties as an antiphlogistic and absorbing agent to a marked degree. The infiltration disappears rapidly and the patients no longer complain of pain, even though they follow their vocation. The final result is very favorable. The infiltration remaining in the epididymitis was very slight and sometimes absent altogether. The neuralgic pains in the testicle and epididymis disappear very promptly. The results were especially brilliant in the case of a patient who had three recurrences until ichthyol was used.

Manual Labor in Phthisis.

Paterson (Lancet) gives the results obtained in the tuberculosis sanatorium with which he is connected, of the introduction of manual labor as a part of the routine

treatment of patients suffering from pulmonary tuberculosis. The grades of work are summarized as follows: 1. Walking from one half to ten miles daily. 2. Carrying baskets of earth or other material. 3. Using a small shovel. 4. Using a large shovel. 5. Using a pickaxe. 6. Using a pickaxe for six hours a day. Patients in grades 2, 3, 4, and 5 work four hours a day. The various grades are each subdivided into sections. The following points appeared to be determined: Suitably selected patients can be gradually trained to do the hardest laboring work for six hours a day, the result being that their general condition is much improved, whilst some lose both their sputum and tubercle bacilli. Certain patients who do not improve on light work show marked improvement on harder work. Patients who have slightly over-exerted themselves and are kept at rest for the few following days are subsequently not only not worse, but may be in their own opinion better. The writer therefore concludes that graduated labor is a definite medical treatment for cases of pulmonary tuberculosis, and raises the general health and resisting power of the patients. The combination of rest, pure air, and overfeeding is not the only treatment for chronic pulmonary tuberculosis.—Inman studied the effect of the hard work on the opsonic index of the blood of the patients. His results show that the exercise supplies the stimulus needed to produce artificial autoinoculation, and that its systematic graduation has regulated this in time and amount. With the aid of the opsonic index the stimulus can be regulated with scientific accuracy.

Deviations of the Spine in Young Girls.

Ester (Ann. de Med. et Chir. Inf.) says that deviations of the spine are very frequent, and involve the capacity of the abdominal and thoracic cavities, compressing the heart and lungs. The spine is predisposed to deviation by its anatomical constitution and functions, as well as by a considerable number of morbid conditions. Deviation may be caused by conditions that do not reside in the spine itself, such as shortening of one leg, myopia causing the patients to bend over, or timidity. It may result from tuberculosis or rickets. One of the most frequent predisposing causes is feebleness of the muscular system combined with hereditary influence. The ordinary life and limitations of a young girl do not permit of her having the exercise and outdoor amusements that boys enjoy, and this results in a lack of muscular development that causes muscular feebleness. Scoliosis is very frequent as a hereditary condition, children of parents that have suffered from scoliosis having the same trouble, and it being even transmitted to the third generation. The determining causes include bad attitudes maintained at study, in writing, and in sewing. Scoliosis is only really curable when it is just forming, in the period of muscular development. Hence it is necessary to watch young girls carefully so as to note the first signs of its appearance. To do this the girl must be undressed so that one can carefully examine the line of the vertebræ and the position of the shoulders. The sign first noticed is that one or the other shoulder is higher than the other. The preventive treatment is most important. It consists of giving girls who have grown fast, and are weak and flabby, more rest, allowing them to stay late in bed in the morning, and lie out in the open air in a steamer chair. Place a plank under the mattress so as to get a firm bed, and let the girl lie on it to rest during the day. The room occupied should be large and sunny. The food should be the most nourishing. These children should be allowed to bathe and swim, and to go to the seashore and mountains in the summer. No corset should be worn that will at all compress the thorax, and it should be perfectly pliable. The girl should be provided with a chair that supports the back, and a desk that is inclined. Curative treatment involves the same factors, combined with the use of orthopedic gymnastics twice a day for a half hour. These exercises are done on the back and under suspension, combined with counter-pressure over the salient points. Massage and electrotherapeutics are most important. When the scoliosis is of the second degree, and disappears under suspension, but not by voluntary movement, there should be added an orthopedic corset, moulded over a plaster cast of the body when under suspension. In the third degree, when the deformity cannot be reduced at all, maneuvers of replacement under anesthesia are necessary, but even these will not bring about a cure, so that the preventive treatment is by far the most important.

Inherited Syphilis.

Lucas (Lancet) objects to the terms "congenital" and "hereditary" syphilis, and prefers "inherited," as implying only something derived from the parents, which is detachable and more correctly expresses the passing on of the spirochæta to the offspring. The cause of syphilis, whether inherited or acquired, is the pesence in the blood of the spirochæta pallida, which can be demonstrated in the various secondary lesions, in the blood, and in the internal organs. It is a protozoon of spiral form

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from four to twenty micromillimetres long and one fourth micromillimetre in diameter, with a flagellum at either extremity. It stains a pale pink with Giemsa's fluid, while the coarser, highly refracting spirochæta refringens, with which it is often associated, stains dark purple. Inheritance of the disease from the farther alone is entirely out of the question, and it follows

TABLE OF CONTENTS FOR APRIL, 1908.

Original Communications.

A Drugless Clinic, by E. H. Martin, M. D., Hot Springs, Arkansas, ... 191
Heart Block, by L. B. Newell, M.D., Charlotte, N. C. 183
Retention of Urine and Its Relief, by Dr. Owen-Smith, Asheville, N. C., 185
Something of the Present Status of Cancer of the Uterus, by Dr. J. H. Marsh, Fayetteville, N.C. 200
The Iodine Treatment of Puerperal Sepsis, by Chas. R. Robins, M. D., Richmond, Va., ... 195
Treatment of Prostatic Hypertrophy, with Report of Cases Operated on by the Perineal Method, by J. Shelton Horsley, M.D., Richmond, Va., ... 197
Tic Douloureux: A Plea for the Proper Medical Treatment before Surgical Intervention, by Beverly R. Tucker, M. D., Richmond, Va., ... 201

Editorial.

Announcement, ... 205
Another Victim of the Octopus, ... 205
A New Hospital, ... 208
Arsenic in Dried Hops, ... 207
Alabama Medical Association, ... 210
Atlanta Sanatorium Increases Staff, ... 211
Cullen Andrews Battle, ... 209
Consolidation of California Journals, ... 210
Cuba Quarantined, ... 209
Dr. Hodges, the Orator, ... 209
Dr. Robert H. Holliday, ... 208
Drug Manufacturer Convicted, ... 210
Dr. J. M. Sadler, ... 208
Dr. J. D. McMillan, ... 208
Dr. T. D. Haigh, ... 211
Escaped Lunatics Recaptured, ... 208
Edw. J. Kinloch, M. D. 209
Food Inspector for South Carolina, ... 207
Lumberton Doctors Organize, ... 211
Nota Bene, ... 205
New Sanitarium, ... 209
Physician's Home Burned, 211
Supreme Court Decides Against Doctor, ... 211
St. Francis Hospital, ... 208
Southern Railway Surgeons, ... 211
The Case of Dr. Knopf, ... 205
The Scourge of Tuberculosis 207
Transactions of the State Medical Society, ... 208
The Physicians and Surgeons of the Confederate Army and Navy, ... 211
The Whiskey Prescription Business, ... 210
Tenth District Medical Society, ... 211

Review of Southern Medical Literature, ... 212

Book Notices.

A Text-Book on Uric Acid and Its Congerers, by Geo. Abner Gilbert, M. D., ... 220
A Cure for "That Tired Feeling," 221
Bier's Hyperemic Treatment in Surgery, Medicine and all the Specialties, by Willy Meyer, M. D., ... 219
Currents of High Potential and other Frequencies, by William Benham Snow, M. D., ... 220
Diseases of the Nervous System, edited by Archibald Church, M. D. 220
Diseases of the Stomach, by Dr. I. Boas, Berlin, Germany, ... 219
Mechanical Vibration and Its Therapeutic Application, by M. L. H. Arnold Snow, M. D., ... 220
Practical Fever Nursing, by Edward C. Register, M. D., Charlotte, N. C., 217
Personal Hygiene in Tropical and Semi-Tropical Countries, by Isaac Williams Brewer, M. D., ... 218
Surgical Therapeutics, by Emory Lanphear, M. D., 217
The Confederate Cause and Conduct in the War Between the States, by Hunter McGuire, M. D., ... 218
Transactions of the Thirteenth Annual Meeting of the American Laryngological and Otological Society, ... 218
Thirteenth Annual Report of the Department of Public Health, Augusta, Ga., 218
The Principles and Practice of Medicine, by William Osler, M. D., ... 218
The Production and Handling of Clean Milk, by Kenelm Winslow, M. D., 219
The Negro: A Menace to American Civilization, by R. W. Shuffeldt, M. D., .. 221
The Presidential Bee, ... 221
The Retiring Admiral of Our Great Fleet, ... 221

Abstracts.

Acute Tuberculous Fever, 222
Acute Poliomyelitis, ... 223
Avian and Human Tuberculosis, ... 227
Appendicitis, ... 228
Abortion 228
Arrest of Hemorrhage after Labor 233
Blackwater Fever 223
Bacilluria in Childhood, ... 236
Cancer of the Cervix and Pregnancy, ... 233
Conjunctivitis, ... 226
Diabetes Mellitus, ... 222
Deviations of the Spine in Young Girls, ... 240
Double Harelip—New Operation, ... 237
Heart Disease in Relation to Pregnancy and Labor, 224
Hemorrhage from Varicose Veins of the Vagina in Pregnancy, ... 235
Inherited Syphilis, ... 240
Injections of Air for Pain, 224
Instrumental Perforation of the Uterus During Abortion 234
Membranous Rhinitis, ... 223
Morbid Pregnancies, ... 236
Manual Labor in Phthisis, 239
Ophthalmoblenorrhea of the New-Born Contracted in the Uterus 234
On Non-Flagellate Typhoid Bacilli, ... 229
Oxaluria, ... 230
Pericarditis, ... 229
Rectal Feeding 229
Rheumatoid Arthritis, ... 231
Rupture of the Umbilical Cord During Labor, ... 234
Spinal Analgesia, ... 235
Suboccipital Inflammation, 235
The Treatment of Acute Gonorrhoea, ... 223
The Treatment of Cardiac Dilatation, ... 238
The Application of Pure Ichthyol in Gonorrhoeal Epididymitis, ... 239
Treatment of Fibroids Complicated by Pregnancy, .. 235
The Local and Internal Treatment of Gonorrhea, 227
The Treatment of Serous Effusions, ... 231
The Treatment of Mucomembranous Colitis, ... 232
Vaccines and Bacterial Infections, ... 227

that the infection of a mother by her syphilitic fœtus can never occur. Inheritance is invariably through the syphilized mother. This is supported by Colle's law that a syphilitic infant cannot infect its mother's breast. When virulent the spirochæta penetrate the chorion or placenta and occasion miscarriages, macerated fœtuses, or premature births, but when the virus is attenuated by time or treatment the placenta forms a complete protection to the developing fœtus, and it is the separation of the placenta at birth which allows the infection to take place through the umbilical vein. Hence the regularity of the secondary exanthematous stage from a fortnight to three months after birth. In these cases the separation of the placenta is the first stage and corresponds to the chancre of acquired syphilis. Syphilis in a man is generally admitted to be capable of tranmission to a succeeding generation for a much shorter time than syphilis in a woman, which supports the view that for tranmission it is necessary that the woman be first infected. It is probable that the disease can be transmitted by milk, but not necessarily so. It is obvious, as the greater cannot be included in the less, that a spirochæta cannot be carried in a spermatozoon; but this does not exclude the possibility of the spirochæta being conveyed by the fluid parts of the semen. Indeed, it seems almost necessary for the latter to be so to account for the cases of inherited syphilis conveyed after the healing of the chancre. A question open to discussion is whether syphilis inherited is capable of transmission to the third generation. The author saw one instance in which the child of parents, both of whom suffered from inherited syphilis, was free from the disease. Syphilitic parentage is probably responsible for a greater infant mortality than any other single disease or condition. This mortality is greatest in those families where both parents have suffered from chancre syphilis and obvious secondaries. The trite definition that syphilis is "a fever diluted by time" is applicable to the inherited as well as to be acquired disease. The secondary stage of inherited syphilis is characterized by eruptions varying from slight brown macular syphilides to pompholyx, by snuffles, stomatitis, condyloma, wrinkled skin, and wasting, and elargement of the speen and liver. The follow changes in the bones—epiphysitis, Parrot's nodes, craniotabes, and bent bones. It cannot be too strongly insisted on that the moist eruptions and ulcerations about the mouth and anus, as well as the vesicular skin affections, are charged with the spirochætæ and are highly contagious. From the second to the sixth year there is commonly a rest in the symptoms, which is quite characteristic. But now the characteristic physiognomy has been gradually formed—the flattened nose, ths square forehead, the stunted figure, and the pallid face. During the second dentition are to be noted the three signs pointed out by Hutchison—the notched incisor teeth, interstitial corneitis, and syphilitic deafness. A characteristic change occurs in the first molars, as first described by Moon. They are reduced in size and dome shaped throuh the dwarfing of the central tubercle of each cusp. The eyes may be early affected by a choroidoreitintis and the ears are also often affected. None of the various viscera seem to be exempt from the disease. Enlarged spleen and liver associated with rickets are almost invariably of syphilitic origin. When the inherited disease attacks both testicles or both ovaries at an early age and brings about their fibrosis and atrophy, a condition known as infantilism is produced at a period when the sexual characteristics should be pronounced. A certain proportion, but not a large one, of epilepitics, deaf mutes, and idiots show signs of inherited syphilis. Great care should be taken in diagnosis, in future the most certain test of the disease being syphilis will be the presence of spirochæta pallida in the part affected. This organism has an extraordinary persistency, producing local symptoms after lengthened periods. But mercury controls its development. Metchnikoff has shown that some hours after direct inoculation the application of a calomel ointment to the sore is sufficient to kill the organism and prevent the occurrence of secondary symptoms.

Miscellaneous.

Dr. C. M. Strong, Councilor for the Seventh District of the North Carolina Medical Society, addressed the Lincoln County Medical Society on Monday, April 6th.

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Recent Progress in the Study of Typhoid Fever.*

By Lewellys F. Barker, M. D., Professor of Medicine, Johns Hopkins University, and Physician-in-Chief to the Johns Hopkins Hospital.

I desire to express my appreciation of the kind invitation extended by the officers of your society to address you at this meeting. I recognize that the courtesy comes to me mainly on account of the cordial relations which have always existed between your members and the Johns Hopkins Hospital, with which it is my good fortune to be connected, and I welcome the opportunity of becoming acquainted with some of the physicians and surgeons of these three States.

On looking about for a subject upon which I might most profitably speak to you it occurred to me that a review of some of the recent progress in the study of typhoid fever, a disease still unfortunately prevalent everywhere among us, might be as interesting as any I could choose. Every physician is practically familiar with the clinical phenomena of typhoid fever. It seems to me better when practitioners meet as we are doing here today to devote the bulk of our time to the discussion of diseases with which we are intimately concerned rather than to spend much of it in the consideration of rare pathological processes with which general clinical experience is not in touch. Another advantage of the subject chosen lies in the fact that real progress has very recently been made in our knowledge concerning typhoid fever. Too often when time-worn subjects are chosen for medical papers so little advance has really been made that the writer is compelled to present only matter with which every one is familiar or can make himself familiar by the perusal of the last edition of a good text-book. Fortunately, through the activity of several enthusiastic young investigators in our clinic in Baltimore it is possible for me to bring before you some new facts concerning typhoid fever, and these, together with gleanings from the very rich current bibliography bearing upon this important infectious process, has supplied me with some ideas which I trust will differ sufficiently from the ordinary text-book content to interest you during the half hour in which it is my privilege to address you.

It goes without saying that, in so short a time, so vast a subject as typhoid fever, even when one limits his remarks to recent progress, can be dealt with in only a very summary way. I shall not do wrong, I am sure, in assuming a familiarity on your part with the main facts concerning the disease, its etiology and pathogenesis, its mode of spread, the diagnosis and the treatment as presented in modern text-books. The time allotted to us, therefore, may be spent in calling attention to a few of the newer facts and conceptions which have resulted from the studies of the years immediately behind us.

An examination of the history of clinical classifications reveals a progressive differentiation. You will recall how long a time it took to analyze the great group of continued fevers and to separate from them as particular diseases such clinical entities as typhoid fever, typhus fever, relapsing fever, acute miliary tuberculosis, acute osteomyelitis, acute ulcerative endocarditis and trichinosis. It is to the credit of American medicine that physicians in this country, stimulated largely by Louis of France, did most important work in this differential process and particularly in separating sharply and clearly typhoid fever from typhus. From the publications of Gerhard of Philadelphia in 1837 to Elisha Bartlett's valuable volume in 1842 American physicians one after another studied and described the clinical and anatomical differences between the two diseases. The distinctions between typhoid fever and many of the affections which resemble it clinically could not, however, be fully recognized before the advent of the modern bacteriological and parasitological era. When a physician today stands before a patient suffering from continued fever he thinks not of one but of many possible bacterial infections or protozoan invasions and proceeds by a systematic and analytical method to acquire the data necessary to form the differential diagnosis. The physicians of our time can draw conclusions with an accuracy which was wholly impossible to those who preceded us in the last century. This increase in accuracy depends in part, it is true, upon the introduction of laboratory methods, but improvement in bedside observation is also responsible, and he who knows how to value in addition to laboratory findings the features of the temperature chart, the pulse, the condition of the abdomen, the size of the spleen, the skin exanthems, the fæces and the bronchial symptoms can attain to a greater precision in diagnosis than is pos-

*A paper read by invitation before the Tri-State Medical Association meeting at Charlotte, N. C., February 18th, 1908.

sible for a pure laboratory man untrained in clinical methods, no matter how skilled he may be in microscopic examination of the blood, in analysis of the urine and fæces or in bacteriological and chemical technique.

One of the interesting results of the modern etiological method of investigation has been the modification of our conception of what typhoid fever really is. We are just now in a transition stage between clinical conceptions and pure etiological conceptions of diseases. Clinical and anatomical studies of the century just past, while they differentiated typhoid from many diseases with which it had previously been confused, also exerted a synthetic influence in that they grouped together as a single clinical entity, typhoid fever, a whole series of diseases formerly believed to be independent processes. Gastric fever, simple continued fever, many of the remittent fevers, so-called typho-malarial fever, nervous fever, some kinds of mountain fever, etc., have all been proven to be typhoid fever. The demonstration of the bacillus typhosus in patients suffering from the disease was hailed with delight as a further means of making diagnosis precise and of differentiating typhoid fever from diseases which more or less resemble it clinically. But, strange to say, the study of infections with the typhoid bacillus has brought with it new knowledge which has created new difficulties and made necessary still newer classifications. We now know that a great many people have the typhoid bacillus in their bodies and yet do not present the symptoms of typhoid fever, and we also know that many people who present the clinical symptoms of typhoid fever do not have the typhoid bacillus in their bodies. When one first hears this statement made it tends to shake his confidence in the specificity of causation in disease, but a deeper acquaintance with conditions shows that this feeling is not justified, though it does become necessary for us to modify certain conceptions which many had come to look upon as firmly established.

It was formerly thought, for instance, that when the typhoid bacillus enters the body the symptoms of the disease appear after an incubation period of definite time. While ordinarily this is true, we know now that the bacilli may occasionally exist for months and even years in the bodies of human beings without giving rise to any recognizable symptoms of typhoid fever, and this fact shows us that the incubation period does not depend upon the typhoid bacillus alone, but is a resultant of this and other factors with which we are as yet unacquainted.

It was formerly thought, too, that the typhoid bacilli multiply chiefly in the intestine and mesenteric lymph glands, that a few occasionally get over into the blood, that ulcers form in the intestine as a result of the multiplication of the bacilli there, and that after the ulcers heal and the bacilli disappear from the intestine the patient gets well. Our conception of pathogenesis is totally different today. The presence of typhoid bacilli in the intestine does not necessarily mean that the patient has typhoid fever, for many individuals who appear perfectly healthy carry almost constantly with them millions of typhoid bacilli within the bowel. In order that the symptoms of typhoid fever may appear the bacilli must be distributed through the blood, and it seems certain that a great many of these bacilli must be killed and the bacillary bodies undergo disintegration, with setting free of their poisonous contents, before the symptoms of typhoid fever develop. The distribution of typhoid bacilli in the intestine is, apparently, not directly related to the intestinal lesions; there are often more bacilli in parts of the intestine which do not show lesions than at the seat of the ulcers. Moreover, during convalescence from typhoid, numerous typhoid bacilli may be present in the intestine without the production of new symptoms or of new intestinal lesions. In other words, it is now certain that what we know as typhoid fever is not merely a gastro-intestinal infection, but a bacteriæmia, and we have to consider not only how the typhoid bacillus gets into the body, but what the conditions are which lead to the invasion of the blood by this organism, and why it is that in some people the bacilli remain long in the intestine without giving rise to a bacteriæmia and in other people a bacteriæmia follows in a few days after the entrance of bacilli into the body.* The demonstration of typhoid bacilli by bacteriological methods in the fæces of a human being does not necessarily, therefore, indicate that the patient has typhoid fever, though it does prove that he is a typhoid-bacillus harborer, and it may mean that he is a menace to the community in which he lives.

The bacteriological study of the blood in typhoid fever has thrown interesting light upon the nature of the infection. The earlier in the disease the culture is made from the blood the easier it is to demonstrate the existence of the bacteriæmia. While formerly it was thought that the bacilli go over into the blood relatively late in the disease, it is known now that the ty-

*cf. Jurgens. Zur Aetiologie und Pathogenese des Abdominaltyphus. Ztschr. f. klin. Med., Berl., 1904, lii, 1704, 40-97.

phoid bacillus can nearly always be demonstrated in the blood in the first week of the disease and the proportion of cases in which it can be demonstrated there falls rapidly from that time on. Occasionally typhoid bacilli have been found in the blood during the incubation period before any symptoms have developed. Systematic bacteriological examinations of the blood have shown, too, how often very mild fevers, which clinically would scarcely be recognized as typhoid fever, are due to the existence of a typhoid bacteriæmia.

Still more surprising, perhaps, as a result of these studies has been the discovery of the fact that in some patients who present clinically the characteristic phenomena of typhoid fever the typhoid bacillus is not present in the blood, but bacilli of other kinds exist there. Most notable in this connection has been the demonstration of the so-called paratyphoid bacillus as a cause of a bacteriæmia associated with clinical symptoms and occasionally with pathological lesions indistinguishable from those which accompany typhoidal bacteriæmia. If it be granted, and many bacteriologists say it must be granted, that the paratyphoid bacillus is not the typhoid bacillus, then it must be admitted that typhoid fever (in the clinical pathological sense) is not an etiological unity, but may be due to at least two varieties of micro-organisms. We can go further. Not only does etiological study divide clinical typhoid fever into groups, but it has shown that the micro-organisms which are the cause of typhoid fever in two of the groups may in certain patients be responsible also for clinical symptoms and anatomical lesions which are not those of typhoid fever in the ordinary clinical sense: thus, to give examples, a cholecystitis or a periostitis or a cystitis of the urinary bladder may occur years after a patient has suffered from typhoid fever and be due to the typhoid bacillus, though the process under observation is unaccompanied by the clinical symptoms and anatomical lesions of typhoid fever. Again, the paratyphoid bacillus is prone to multiply in meat and other food products; human beings who eat food so contaminated may present the phenomena of an acute gastro-intestinal infection with the clinical picture of cholera nostras without any invasion of the blood with the paratyphoid bacillus. Here, then, is an example of a disease which has nothing to do with typhoid fever, though it is due to the paratyphoid bacillus, a micro-organism which when it enters the blood and gives rise to a bacteriæmia is capable of producing all the clinical symptoms and pathological changes of typhoid fever. Let me cite a couple of cases which have come under my own observation in the wards of the Johns Hopkins Hospital during the last year, and which corroborate this view.

Case I.—Man, æt. 24, admitted to the Johns Hopkins Hospital Aug. 18th, 1907, complaining of "pain in his head." He had had typhoid fourteen years before. One week before admission began to have pain in temples and throbbing in the head and sleeplessness. Three days later vomiting; later still epistaxis, and the day before admission a chill followed by sweating. Anorexia marked. Two men had been sick in the house with gastro-intestinal symptoms two or three weeks before patient was taken ill.

On examination his temperature was 101 degrees, pulse 80; a few scattered fine rales in lung; spleen not palpable; slight general glandular enlargement; leucocytes 7,340. Urine free from albumin, sugar and casts. Widal negative for bacillus typhosus. Temperature gradually fell to normal, but on Aug. 30th there was recrudescence of the fever associated with headache, nausea and vomiting. Dr. Clough again made the Widal test for bacillus typhosus and found it negative though suggestive. Next day the temperature rose to 103 degrees and a characteristic relapse was entered upon with leucocytes numbering 5080. On Sept. 2nd Dr. Sladen made a culture from the blood and isolated the bacillus paratyphosus. The pulse became dicrotic and patient began to look dull and typhoidal. By Sept. 19th the temperature and pulse had gradually fallen again to normal. On Sept. 28th he suffered a second relapse with still higher temperature. On Sept. 30th temperature 104 degrees. On Oct. 4th pain and swelling of left lower extremity. The temperature gradually fell to normal and patient was discharged Nov. 15th after twenty-eight days of normal temperature. Late in the disease (Nov. 2nd) the blood-serum of the patient agglutinated the bacillus which had been isolated by the blood culture made on Sept. 2nd. The chart shows the temperature until Oct. 31; after this date, Dr. Emerson informs me, it remained normal.

Clinical Diagnosis:—Typhoid fever with relapse.

Etiological Diagnosis:—Paratyphoid bacteriæmia.

Case II.—Housemaid, æt. 18, admitted to medical service of the Johns Hopkins Hospital Sept. 24th, 1907, complaining of vomiting and diarrhœa. She told the ward physician, Dr. Henry, that for a week before admission she had suffered from headache. At two o'clock on the morning of admission vomiting and diarrhœa began. The nausea was distressing and constant and she had six stools that morning. There

was some pain in the lower abdomen, not definitely localized, and constant rather than paroxysmal.

She looked dull, answered questions slowly, and the pupils were wide, though active. Retention of urine. Temperature 102 degrees, pulse 120; spleen not palpable; no rose spots; white blood count 11,050. Dr. Emerson could make out no special tenderness at McBurney's point. Urine and sputum negative. Gruber-Widal reaction negative for bacillus typhosus on Sept. 25th and on Oct. 2nd. On Oct. 3rd agglutination test positive with three different strains of bacillus paratyphosus. Blood culture (Dr. Sladen) made Oct. 5th negative.

The temperature fell the day after admission to 99 degrees, and the vomiting and diarrhœa soon ceased. She had very slight fever for a few days. Her appetite soon returned, and she was discharged very well on Oct. 27th.

Clinical Diagnosis:—Acute catarrhal gastroenteritis.

Etiological Diagnosis:—Though the paratyphoid bacillus was not cultivated from the stool, the appearance of quantities of agglutinins in her blood for this organism made it seem highly probable that it was the cause of her gastroenteritis. The attack, however, does not resemble (clinically) typhoid fever in any way.

It is clear, therefore, that diseases having the same bacteriological cause may present wholly different clinical pictures and be regarded as entirely different clinical entities owing to the different disturbances of physiological function which result from the varying distribution of the bacteria in the body and the differences in the tissues which react to the infection; this fact, it seems to me, is just as interesting as the one upon which I have already laid emphasis, namely, that two patients presenting symptoms indistinguishable to ordinary clinical observation may be suffering from an invasion of the blood with entirely different microbes.

Another notable feature of our present-day conception of typhoid fever, to which it seems to me worth while to refer, is the relation in which the infecting micro-organism stands to the production of the symptoms which we call the disease. These symptoms do not appear to be due so much to the living bacteria themselves as to a reaction on the part of the cells and fluids of the body to poisons set free from dead and disintegrating bacteria. These poisons have been called endotoxins by Pfeiffer, and though many have objected to this term it seems to be growing in popularity, and the conception of typhoid as an endotoxin disease* seems to grow in medical favor. One method the body adopts in combatting typhoid fever and similar infections is to kill the invading bacteria, and it is a little disconcerting to be told that the more quickly the body kills and disintegrates the bacteria the more severe may be the symptoms of the disease; this seems, however, to be a necessary assumption when all the facts are considered, though until we learn how to utilize or control a high bactericidal power of the blood the physician may not be able to gather many grains of comfort from the reflection that the blood of his sickest typhoid patient may have greatest bactericidal power. In this connection it should be borne in mind that the relation of the endotoxin poisoning to the febrile reaction and other disease symptoms is by no means yet clear. It seems probable that the explanation is to come with a better understanding of what we now know as hypersusceptibility reactions. Those of you who have followed recent literature will remember the hypersusceptibility which men and animals develop in a few weeks after the injection of a substance like blood serum. We begin to understand now why it is that a relatively small dose of diphtheria antitoxin may prove fatal if it be administered a few weeks after a much larger dose has been given without harmful effect. It has been shown that a whole series of protein substances* act in this respect as does blood serum.*

The new ophthalmic reaction for the diagnosis of tuberculosis in infants and other tuberculin reactions appear to depend upon a hypersusceptibility to tuberculin which arises in patients the subject of tuberculous infection. The fact that during the incubation period of typhoid fever there is no febrile reaction indicates that even though typhoid bacilli are being destroyed in small numbers in the body it takes some time for the bodily tissues to become so sensitized by the endotoxin that they begin to yield the hypersusceptibility reaction. I have been much struck in this connection with the rapidity of the rise of the fever in a typhoid relapse as contrasted with the slow, step-like rise of the initial pyrexia, and I have wondered whether or not the

[*cf. Stadelman, E. and A. Wolff-Eisner. Ueber Typhus und Kol sepsis und ueber Typhus als Endotoxinkrankheit. Munch. med. Wchnschr., 1907, liv, 1161; 1237.]

*Wells, of Chicago, has recently marshalled some evidence in favor of the view that it is the aromatic constituents of the protein molecules that are concerned in hypersusceptibility reactions. cf. Jour. Amer. Med. Asso., Chicago, 1907.

*cf. Rosenau (M. J.) and Anderson (J. F.) Studies upon hypersusceptibility and immunity. Washington, 1907.

sudden rise of the relapse might be due to the heightened susceptibility reaction to substances from the bacterial bodies set free with the renewal of the bacteriæmia. (cf. Temperature chart of Case I.).

Enlightening as these studies of etiology and considerations of pathogenesis have been the advances made in our knowledge of the mode of spread of typhoid fever are no less significant. It was a remarkable reversal of epidemiological ideas when the localistic doctrine of the Pettenkoffer school regarding the spread of typhoid was abandoned and the doctrine now held, according to which the source of new infections is the patient who carries the typhoid bacillus, was adopted. It was a triumph of the bacteriological school when it proved that far less was to be feared from temporal influences, the state of the ground water and the nature of the soil, than from infection of the environment (the water, and the milk and other foods). Indeed the significance of infected water supplies and milk supplies for the more explosive outbreaks of typhoid fever is so great that many physicians when they meet with a new case of typhoid fever think only of water and milk and forget a mode of infection which is extremely common and which should never be out of mind; namely, infection by contact. Typhoid is a much more communicable disease than is ordinarily supposed, and a relatively large proportion of cases undoubtedly result from the transfer of bacilli directly or indirectly from person to person.

This communicability of typhoid by contact has recently been made the object of special study, and we owe a great deal of our new knowledge particularly to the researches of government officials connected with the special commissions appointed in Germany.*

The outcome of these studies is the determination of the fact that the typhoid patient is a greater menace to his fellows early in the disease than later. Indeed it has been demonstrated definitely that even in the incubation period, before any symptoms have been shown, the individual coming down with typhoid may infect other people. Since the incubation period, though averaging usually ten to fourteen days, may last from five to six weeks, the significance of this new discovery is obvious; one sees how difficult it must be to institute preventive measures against infection through early contact. We must, if possible, work out some method for the earlier recognition of a developing typhoid infection so as to be able to lessen the danger from early contact. It seems probable that the bacilli given off by patients at the beginning of the disease are more virulent than those excreted later on; after the typhoid patient goes to bed the bacilli discharged from his body appear to be markedly diminished in virulence.

During the past few years a new and very perplexing problem has confronted physicians who interest themselves especially in preventive medicine. The discovery of the so-called "microbe-carriers," people, apparently healthy, who are either continuously or paroxysmally giving off from their persons pathogenic bacteria which may set up disease in those who come in contact with rhem, has materially altered our ideas regarding the mode of spread of cholera, typhoid fever, diphtheria, influenza and other infectious diseases. As far as typhoid is concerned three categories of bacillus-carriers may be recognized, the primary, secondary and tertiary bacillus-carriers. By a primary bacillus-carrier is meant an individual who in some way or another has taken the typhoid bacillus into his body, and though he has presented no disease symptoms himself, continues to give off bacilli into his surroundings for a shorter or longer time. The so-called secondary bacillus carrier is a person who, having passed through typhoid fever and recovered from all symptoms of the disease, is found to give off typhoid bacilli for a long time though not permanently. People are accounted as secondary carriers if they excrete typhoid bacilli longer than ten weeks after the beginning of their typhoid infection. By a tertiary bacillus carrier is meant a person who, after having undergone a typhoid infection himself, permanently harbors and permanently gives off into his surroundings large numbers of typhoid bacilli. Tertiary carriers are known who five, ten, twenty years and longer after typhoid fever continue to have their fæces laden with typhoid bacilli. Some of the secondary carriers give off bacilli through the urine, but many of them, and all of the tertiary carriers, give off bacilli through the fæces; owing to a chronic typhoid infection of the gall bladder, the intestines are constantly re-infected by outpouring of infected bile from the gall bladder into the duodenum. It is a matter of credit to American medicine that the explanation of the chronic carrier was foreshadowed by work done in Dr. Welch's laboratory in Baltimore seventeen years ago.*

It was then shown that typhoid bacilli injected into the ear veins of rabbits could be found in the bile for long periods

*Conradi, H. Ueber die Kontagiostat des Typhus. Klin. Jahrb., 1907, xvii, 297. Kirchner, M. Ueber die heutigen Stand der Typhus Bekampfung, 433, 166.

after the injection, in some instances as long as 128 days. Subsequent studies have proven that though both blood serum and bile are inimical to the growth of typhoid bacilli, when bile is mixed with blood serum the anti-bacterial properties of both are neutralized. [Mr. J. E. Burns is now at work in the biological division of the laboratory of our clinic at the problem of determining which constituent of the bile is responsible for the neutralization of the bactericidal power of the blood and lymph. His studies thus far indicate that the bile salts are chiefly concerned.] When, therefore, typhoid bacilli lodge in the gall bladder and set up an inflammation of that organ, leading to exudation of lymph from the wall of the gall bladder it is easy to understand how conditions may arise which make the gall bladder a suitable permanent habitat for the typhoid bacillus.* The relation of the persistence of typhoid bacilli in the gall bladder to the origin of gall stones is now well known and the presence or absence of a history of previous typhoid fever helps one sometimes in drawing conclusions as to the existence of gall stones in suspicious cases. It turns out that far more women than men (3 or 4 to 1) are chronic bacillus-carriers, and this also is in accord with the fact that far more women than men suffer from gall stones. It has been demonstrated now repeatedly that the chronic bacillus-carrier is responsible for the development of typhoid fever in a certain number of people who come in contact with him. You have all heard of the remarkable case in New York of the cook who infected several households in which she worked, though apparently well herself, and who on bacteriological investigation was found to have almost a pure culture of typhoid bacilli in her fæces.

One sees at once the explanation of so-called "typhoid houses." The typhoid bacillus-carrier is by no means uncommon. Conradi's statistics indicate that perhaps five per cent. of the people who suffer from typhoid become secondary bacillus-carriers, though a smaller proportion become tertiary carriers. Though these carriers undoubtedly give rise to the disease in other people at times, it seems probable that the virulence of the typhoid bacilli in chronic carriers is, as a rule, much reduced, and this explains, perhaps, why contact infection from chronic carriers is not more frequent than it is.

The existence of bacillus-carriers in the community, together with the demonstration of the high communicability of typhoid fever during the incubation period of the disease helps us to understand why it is that typhoid persists even in communities that have carefully controlled water supplies, and where precautions are taken to avoid infection by contact with patients in whom the disease has been recognized. Though typhoid has been greatly reduced in cities like Berlin and Munich through the introduction of pure water supplies, it has not been exterminated there, and last summer I attended a clinic of Friedrich Muller's in Munich in which he reported a whole series of typhoid infections in that city which appeared to be independent of the water supply. In Washington, too, as you know, though the water supply has been greatly improved, the morbidity from typhoid fever does not show the decrease hoped for. Some believe that the Washington water supply, though improved, is still contaminated with typhoid bacilli. How large a part contact infection plays in the origin of the Washington cases we do not yet know. In country districts also the prevalence of typhoid has been but little diminished as yet by hygienic methods directed toward the water supply. All these facts indicate the great importance of contact infection, and until contact infection can be prevented typhoid will prevail. The difficulty is especially great on account of the dangers from mild cases of typhoid fever which go entirely unrecognized by the medical profession. In the little district of Trier in Prussia, where a systematic bacteriological examination of all people in contact with typhoid patients was made by a special commission appointed for the purpose, though only eight cases of typhoid infection had been recognized by physicians and reported as such, no less than 64 additional cases were found. In other words, this indicates that the number of cases which had gone unrecognized was eight times that of those discovered. Facts such as these may be very helpful to us in the future, and doubtless will be, but it must be admitted that they discourage us somewhat at first hearing.

Since there is no doubt that infection of the gall bladder is an extremely common occurrence in the course of typhoid fever, and since the chronic bacillus-carrier is a menace to the community in which he lives, it will obviously be a great boon if we can discover some mode of preventing infection of the gall bladder or of killing the bacilli

*Blachstein. Intravenous inoculation of rabbits with the bacillus coli communis and the bacillus typhoabdominalis. Johns Hopkins Hosp. Bull., 1891, ii, 96; Welch W. H. Additional note concerning the intravenous inoculation of the bacillus typhoabdominalis. ——, 121.

*cf. Cushing H. W. Typhoid cholecystitis and cholelithiasis. Johns Hopkins Hosp. Bull., 1898, x, 91.

in the gall bladders of the chronic carriers. You will recall that Richardson of Boston, working in Wright's laboratory at the suggestion of Vickery, proved that the multiplication of the typhoid bacilli in the urinary bladder can be controlled by the administration of hexamethylenamine, and it has been a practice in the Massachusetts General Hospital for several years past, as it has been our practice in Baltimore recently, to give this drug as a routine measure in typhoid in order to prevent typhoid bacilluria or to hold it in control once it has developed. One of the students in the Johns Hopkins Medical School, Mr. S. J. Crowe, has this year undertaken to find some mode of preventing the growth of typhoid bacilli in the gall bladder. Acting at the suggestion of Dr. Loevenhart, and working in the pharmacological laboratory, he has tested the effect of hexamethylenamine and has found that formaldehyde can be demonstrated after its administration not only in the urine, but also in the bile, in the pancreatic juice, in the cerebrospinal fluid and in the synovial fluid of joints. In several cases of infected gall bladders which have been operated upon surgically, where the bile flowing from the fistula was rich in bacteria, he has been able by the administration of rather large doses of the drug to render the bile almost sterile in the course of two or three days. This seems to me to be a discovery of very great importance, and though it remains still to be tested in how far the administration of hexamethylenamine will prevent and cure the chronic bacillus-carrier, it is possible that it may prove to be useful. If it is not efficient, we must find something that is, so that we shall be able to prevent the development of cholecystitis in typhoid fever and perhaps to prevent the formation of gall stones subsequent to typhoid fever. The surgeons have succeeded in late years in transferring from the domain of the internist to their own field the treatment of a large part of gall bladder disease. It would be interesting if we as internists should be able to reclaim at least a part of the territory which the surgeons through the brilliant results they obtain have led us to yield to them.

From what I have said it is obvious that the prevention of typhoid fever will more and more depend upon the early recognition of cases of the disease, and especially upon the recognition of typhoid and paratyphoid infections which ordinarily escape notice. Outspoken cases of the disease are easily recognized by the course of the temperature, the pulse, the palpable spleen, the rose spots, the character of the stools and the initial bronchitis. In less obvious cases the marked decrease in the number of white blood corpuscles, the diazo reaction in the urine and the Gruber-Widal reaction are a help. But far more important and decisive than any one of the signs and tests mentioned is the early blood culture. In more than 90 per cent. of the cases if a culture be made from the blood during the first week of the disease the presence of the bacillus causing the bacteriæmia can be demonstrated. One sees at once how far such diagnostic results surpass anything obtainable from the Gruber-Widal reaction. The latter is rarely positive in the first week; frequently it is not present until the third week of the disease, and it may be absent throughout the entire course of a disease which is undoubtedly typhoid fever. A much more difficult bacteriological test, but one which is essential in systematic investigations directed toward the determination of all existing cases of typhoidal infection in a community, is the bacteriological study of the stools. Special culture media are necessary, and thanks to the introduction of such by Drigalski and Conradi, by Endo, Lentz and others, it is now possible to determine accurately on repeated examinations the presence or absence of typhoid bacilli in the stools. Still another diagnostic method consists in the demonstration in the blood of certain specific anti-bodies other than the agglutinins revealed by the Gruber-Widal test. Thus Stern and Korte have devised a means of diagnosis dependent upon the demonstration in the blood of specific bacteriolytic substances. One of our medical students, Mr. H. S. Denison, working under Dr. Cole's direction in the biological division of the laboratory of our medical clinic, has confirmed these observations, and we were able this past autumn to bring the absolute proof of the existence of a typhoid infection where the ordinary clinical observation, the Widal reaction and the blood culture, were not decisive. Mr. Denison has found, as others have already done, that these bacteriolysins may be present in very large amount in the blood, though frequently they are largely inactive owing to deficiency of the so-called "complement" in the blood of the patient. Dr. Klien, also working in the same laboratory, has demonstrated the existence of a high grade of opsonic power of the serum in the blood of animals immunized against the typhoid bacillus, but the determination of these opsonins has not been of help as yet in making diagnosis in this disease.* It was announced last summer in Paris that Chantemesse had devised an ophthalmic reaction for typhoid similar to that used by

*Klien (H). The opsonins in typhoid immunity. Johns Hopkins Hosp. Bull., Baltimore, xviii, 1907, 245-252.

Calmette and others for the diagnosis of tuberculosis in infants. He asserted that by instilling a dilute solution of typhoid toxin into the eye a marked reaction occurs in patients suffering from typhoid infection but not in other individuals. We have not yet been able to control these experiments, but later reports from Paris hint that not much is to be expected of them. Much more promising as a delicate and early diagnostive reaction for typhoid infection is the specific precipitin test recently suggested and employed by Fornet.

A vast deal of progress has been made, too, in the study of the natural cure of typhoid fever. We are much better informed today than we were five years ago as to the various kinds of anti-bodies which are formed in the course of the disease, the times at which they arise, the varying degree of formation and the like. I shall not burden you with the details which have accumulated concerning the specific agglutinins, bacteriolysins, opsonins and precipitins. It will suffice to say that notwithstanding the work which has been done it is not yet clear exactly upon what the immunity acquired in the typhoidal infection depends. While anti-endotoxic, agglutinative, bacteriolytic and phagocytic functions have been demonstrated to exist, it is not at all certain that the ultimate immunity acquired depends upon any one of these or even upon a combination of them. It may be that some subtle adaptation of the cells of the body, the nature of which is as yet entirely unknown to us, may be responsible for the immunity of the typhoid convalescent. It is otherwise difficult to understand how it is that great numbers of typhoid bacilli, malignant for other people, can remain for weeks, months, and years in the bodies of patients who have recovered from typhoid. The future will undoubtedly disclose to us the explanation, but at present we must frankly admit our ignorance. In the treatment of typhoid fever, therefore, we have as yet to be content with the expectant and symptomatic measures which have gradually been worked out by clinicians. None of the specific modes of treatment by serums or vaccines hitherto devised seem to be of any value. In one case we injected the serum of a convalescent typhoid fever patient into the blood of a man at the height of his disease. We proceeded very cautiously, for though it was possible that the developing immunity in the convalescent might make his serum helpful to the non-immune, it seemed to us also possible that the higher bacteriolytic power of convalescent serum might, through the more rapid destruction and disintegration of the typhoid bacilli in the blood of the very sick patient, set free so much endotoxin that the symptoms would only be increased. The results of the injections supported the latter view. Though there was but little change in the patient's condition, what change there was seemed to those of us who observed him to consist in an exaggeration of the disease symptoms; others who have experimented similarly have come to a similar conclusion. The time will doubtless come when we shall have a specific therapy for typhoid and paratyphoid infections, and it seems likely that a successful specific treatment, when devised, will be the result of the prosecution of studies concerning typhoid immunity. These studies are now being pushed with great vigor not only in American clinics and laboratories but in many of the medical clinics and pathological and hygienic laboratories in various parts of the world. Let us hope that ere long they may bear fruit which can be utilized for practice. Prophylactic vaccination against typhoid fever appears to be of considerable value and it is to be hoped that, before the soldiers of the United States are plunged into another war, arrangements may have been perfected for an anti-typhoid vaccination which will prevent a repetition of the horrors of Chickamauga and other army camps. In the meantime a flood of new light is being shed upon the mode of spread of the disease and our new knowledge of the dangers of contact infection and the menace of the bacillus-carrier permit us to do much to check the prevalence of typhoid fever. When we recall how disturbed the country is over a few cases of bubonic plague in San Francisco or of yellow fever in New Orleans we can but wonder at the complacence with which the laity and the medical profession view the existence of typhoid among us. No less than 35,000 people die every year in this country from this disease. No less than half a million people, perhaps twice this number, suffer and are incapacitated for a time each year from typhoid fever in these United States. The disease is preventable. Surely, physicians and laymen alike should devote all the energy and all the money possible to the solution of what we must regard as a most serious hygienic problem.

The Little Things in Obstetrics.*

By Dr. J. T. Graham, Wytheville, Va.

As the title might suggest, this paper does not refer to babies only, but is an account of some little things that have been

*Read before the Tri-State Medical Association meeting at Charlotte February 18, 1908.

found by experience in the practice of obstetrics that add to the comfort and safety of both mother and child, and at the same time benefit the reputation of the physician. Many physicians, especially when they begin practice, make a mistake in thinking that some great discovery, the performing of some brilliant operation, or the management of a difficult case, will help them to establish a great reputation; but knowing how to diagnose and properly treat a case of measles even is of more real value to the general physician than the ability to skillfully do a hip-joint amputation. The same is true in the practice of obstetrics. It is just as important to properly manage the ordinary cases as the extraordinary ones; and somehow the man who gives the proper care to the ordinary cases will have very few extraordinary and difficult cases to manage.

The first little thing to be noticed in the practice of Obstetrics is the completeness of the physician's preparations for the case at hand. Everything likely to be needed must be arranged in a convenient place, and in an orderly manner. All this, when done quietly and without bluster, with no unnecessary display of instruments, will give a feeling of confidence to the patient so necessary to the success of the physician.

Then there is the question of the position of the woman during labor. The English position, on the side, the American, on the back, are the two positions we heard of in College; but in practice we find there are many variations, and why shouldn't there be? During the first stage of labor, the woman will be more comfortable, and materially hasten the progress of her labor, by sitting up. Grandmother's old armed rocking chair will be found most comfortable, and during the pains the arms of the chair, gripped by the hands of the patient, furnish a good support for the push or pull. The pains seem to be more effective with the woman in the upright position during this stage, dilatation goes on more rapidly, and the patient does not become worn out as quickly as she would if confined in bed either on her side or back.

It was my misfortune to have studied medicine just at the time when antiseptics were being lauded, and the value of asepsis had not been fully recognized. I was taught to use the antiseptic douche in my cases of obstetrics, both before delivery and after. Some of my patients got well in spite of this treatment. But I had more or less trouble as long as I continued to use the douche. I now consider it not only useless but absolutely dangerous, especially the douche after delivery. More trouble will be carried into the open uterus than will be washed out of the distended vagina by any douche—antiseptic or aseptic.

In cases of instrumental delivery, if the labor has been unduly prolonged, and when repairs have been made to a mutilated perineum, a creolin douche may be used with safety and benefit to the patient; but in the majority of cases I do not use douches, nor do I let the nurse use them.

There has been a great deal of discussion for and against the use of ergot during labor; and finally the consensus of opinion against the use of ergot before the termination of labor seemed to predominate. But no question is ever settled until it is settled right. The use of small and often repeated doses has brought about a great change in the application of many drugs. New and wider fields of usefulness have been discovered. It is so in the use of ergot.

During the second stage of labor, especially if the first stage has been unusually prolonged, the uterus sometimes loses the power of effective expulsive contractions, and the pains may cease altogether. In just such cases the use of ergot in small doses will be found very effective. Put one teaspoonful of Ergotole in about one ounce and a half of water and give a teaspoonful of the mixture every thirty minutes and you will find a rapid increase in the progress of labor by the time your patient has taken three or four doses. The pains thus stimulated are intermittent, while thus produced by giving the ergot in one full dose will become continuous and shut off the circulation from the mother to the child, producing the death of the latter. In small doses ergot has never given me such results, but on the other hand, its effects have been very happy. After the placenta has been delivered the patient is given the ergot that is left in the glass from which she had the small doses.

The young physician rarely begins his obstetrical practice with the assistance of a trained nurse. Yet he does not lack for help. All the old women in the neighborhood of his patient will be on hand to watch, criticise and gossip. If everything goes on all right and at last he hears the lusty cry of a squirming infant, he need not congratulate himself that his trials are over. The thing of greatest importance in the eyes of his critics is not the successful and proper delivery of the placenta, not the prevention of post-partum hemorrhage, but the supreme test of his skill as an obstetrician is his ability to "dress the cord." He may succeed in every other particular, but failure here is failure indeed.

I had some trouble along this line by trying to use the doubled and twisted spool cotton rope that was always prepared for

me by some one assuming the place of nurse. The spool cotton is just as good as tape for tieing the cord if it is doubled two or three times, but never twisted. When twisted and then doubled and twisted again, you have a coarse string with spiral edges that resembles a small augur and it is almost impossible to tie it tightly enough around the cord to prevent the oozing of blood from the severed vessels, and frequently the hemorrhage is sufficient to call for another tieing.

For dressing the cord, nothing is better than a fold of absorbent cotton about four inches square with a hole cut in the centre. Draw the cord through this hole, fold the cotton over it as a mother wraps up her boy's cut finger, and then a good fitting "belly-band" will keep it in place.

As to the binder for the mother, its use is becoming a fact of ancient history. I have seen all shapes, sizes and conditions of binders and have yet to see one that is comfortable, or one that is anything but a nuisance. They may give relief to the mind of some foolish woman anxious about the figure of her daughter, but if that daughter ever goes through one confinement without using a binder, you will never get one on her again.

The New Currents in the Treatment of Nervous Diseases.*

By Chas. M. Hazen, M. D., Physical Therapeutist and Junior Neurologist, Memorial Hospital, Richmond, Va.

The older currents in use in the treatment of nervous diseases are the galvanic and faradic; the sinusoidal has never made for itself strictly a separate place. In contrast to these we mean by the "new" currents those of a high voltage and low amperage, such as are derived from a high tension coil or a static machine.

We learn from electro-physiology that the constant current in passing through nerve and muscle produces the condition known as electrotonus; and that both constant and interrupted currents stimulate the activity of protoplasm. Beyond this we have no light at present upon the physiological action of electricity (except when it is strong enough to produce the chemical effects of electrolysis). Our work therefore in electro-therapeutics is necessarily empirical. The high voltage currents have, however, shown their power to *stimulate and regulate cell activities*, and this fact furnishes us with a starting point for the working out of a rationale and technique.

The cases which I shall quote are distributed through the following classes of nervous diseases: cerebral paralysis, spinal cord conditions, peripheral neuritis, trophoneuroses and neurasthenia. Cerebral paralyses due to disturbance of circulation would have to be handled with care and I have not so far ventured much in this direction. I desire, however, to report a case of diplegia in a four-year old boy in which the continuous unipolar current from a static machine has been of benefit. The case was referred to me by Dr. Matthews from his orthopedic clinic; it presented in a child otherwise normal and well nourished a slight backward deviation of the head, slight strabismus, slightly choreiform movements of the arms and cross-legged progression; the mentality was pretty near normal. Braces were ordered, but in the month before they were applied the electrical treatment caused marked improvement in the arm co-ordination, in overcoming the spasticity of the flexors and adductors of the lower limbs and in strengthening the muscles generally. An attack of the grip held him back for a while, but when I saw him last after three month's treatment the results were noteworthy. This is a favorable case for treatment, because the general tendency is toward improvement anyway, and the electrical current gives the added impetus needed. I feel sure this child will really learn to walk. Most of this class of cases, however, will not be amenable to treatment, especially where, as is so common, the mental defects are marked.

In spinal cord conditions my experience has not been so far sufficient to speak with confidence. Snow and other authorities report definite results in posterior sclerosis. I have been able to control symptoms to some extent and am hopeful eventually to do more than this, but I believe the problem is a complex one. I have had under treatment a paralysis of twelve years standing, the result of anterior poliomyelitis with apparent improvement for a time, but treatment has been discontinued. One case plainly of nuclear origin is a paralysis of the motor branch of the fifth nerve on both sides following typhoid fever. This is improving satisfactorily.

Peripheral degeneration of traumatic or other origin seems to yield uniformly to the application of the high currents. I have in this line a large number of cases which would bear quotation. Of these the most numerous are paralyses of the seventh nerve.

Mr. T. was referred to me by Dr. Call. Her case was one of inflammation due to taking cold She said her sister had once had a similar case. She had received faithfully the classic treatment for this trouble,

*Read before the recent meeting of the Tri-State Medical Association at Charlotte, N. C.

with drugs and faradism, but without improvement. Three weeks with the high potential currents produced a marked effect —so much so that the patient inquired why she hadn't been sent to me before. I explained that she had had the very best treatment previously known and that the new treatment was in its infancy.

In these cases the first two applications usually help the ocular discomfort; I direct the eye to be bandaged at night so as to keep it closed. Massage assists, but should be applied equally to both sides alike; so far I have not had as a sequel the overaction of the paralyzed muscles on their recovery.

Another of my earlier cases was a pressure paralysis after a pelvic operation, the nerve cords in the axilla having been kept too long in a strained position. The patient, Mrs. F., presented a right arm almost useless, with stiff fingers, and atrophied forearm, with characteristic shiny skin. On examination the ulnar and median nerve were found to be chiefly involved. Eighteen treatments resulted in sufficient improvement to satisfy the patient, who said that she could now sew, hold knife and fork, and stretch an octave on the piano; the skin and the plumpness of the arm had improved.

A pressure neuritis recently treated was due to the Esmarch bandage applied above the elbow on a small thin arm. The patient, Miss B., had web fingers which were successfully operated upon by Dr. Robins. But the operation was followed by paralysis of the forearm, the extensors suffering most. After a period passed without improvement she was referred to me and a month's treatment restored function, with considerable improvement in the size and appearance of the atrophied muscles.

Among other peripheral palsies satisfactorily treated is an atrophied arm and shoulder due to tearing or stretching of the anterior roots of several cervical nerves; a motor and sensory paralysis due to injury of the external popliteal nerve. Several cases of sciatica have yielded to the electrical application; also intercostal neuralgias, and one case of malarial neuritis of one of the dorsal nerves.

Under the head of tropho-neuroses, broadly interpreted, I may be allowed to mention cases of arthritis deformans, one case of exophthalmic goitre, and a paralysis agitans, which were markedly benefited.

Neurasthenia is a condition presenting such variety in etiology, accompanying features and degrees of severity that it can hardly be spoken of generically. Almost every case of neurasthenia responds in a greater or less degree to proper electrical methods. But we are often disappointed, as much as we are on the other hand delighted in some instances. Treatment of disturbed metabolism is usually necessary at the same time and we have in high potential electricity one of the most active of the physical therapies for this end.

I have purposely in the above short sketch avoided the discussion of particular methods of application and technique. This is outside of the present scope and moreover must be learned in the presence of the patient and the apparatus.

Medical Morals and Manners. †

By Hubert Ashley Royster, A. B., M. D.,
Raleigh, N. C.

When I received an invitation to address you, I promptly accepted it, because, whatever may be my misgivings concerning my own efforts, I never neglect an opportunity to mingle with my professional brothers. When I was told that I should have the privilege of addressing a general audience, I came the more gladly, because I have always been interested in problems affecting alike the layman and the medical man. Nothing could be further from the truth than the idea that the physician revels in mystery or desires to be enveloped in a veil of secrecy. His relations with his patients and with his profession are necessarily confidential in their nature, but when viewed in their proper light one cannot fail to see that what the doctor strives for, is to be frank, honest, and trustworthy. He is ready and willing to take the people into his confidence, if by so doing he can perform a good service or benefit his fellow man. But I am not here to deliver a eulogy upon the physician; for, although he is a sincere altruist in that he seeks by laws of hygiene to prevent the very conditions from which he earns his living, the doctor has his faults and is as human as the rest of mankind.

I have been asked to talk to you on "medical ethics." This expression presents such a formidable aspect to the average layman and its significance is grasped with so much difficulty, even by some in the profession, that it were desirable, if we could, to use a different term to convey the meaning. We learn from the dictionary that the word "ethics" means "the science of human duty" or a "body of rules drawn from this science." Applying this, we may say that the meaning of the term "medical ethics" is stated exactly, if we add a further definition given by the dictionary—the "rules of practice in respect to a single class of

† An address delivered at a public meeting of the Lenoir County Medical Society, Kinston, N. C., February 7, 1908.

human actions," viz: the conduct of the medical life. Medical ethics, then, shorn of its mystery and seen in its real light, may be looked upon as the prescribed course of morals and manners for the medical man. In its practice there are but two principles involved—that of being a gentleman and that of observing the golden rule. For the sake of clearness then, I shall call my subject: "Medical Morals and Manners."

From the laity it is common to hear such expressions as: "You doctors have such peculiar ways with each other," or "I don't understand your etiquette, it is so particular." Over and over again these remarks or similar ones are heard by doctors and, when they attempt to explain, their words fall upon apparently unintelligent ears. Now, the ways of the doctor are not strange, when one understands the conditions under which he labors. The word etiquette, which refers only to the outward behavior, should not be confounded with ethics, which expresses that plus the moral attitude. Every profession and occupation has its rules of conduct, whether written or unwritten. The attorney at the bar has his spectific relations with the court and his client; the teacher conforms to certain regulations in regard to his colleagues and their pupils; the business man feels obliged to live up to standards of honor and fair dealing with his associates and customers. It is to the eternal glory of the medical profession that its code of morals is so strict as to be called "peculiar" and "particular."

The relations of physicians to their patients, to one another and to the public have formed the theme of many discourses and I shall not attempt to consider them here in detail. They are well set forth in the "Principles of Medical Ethics" adopted by the American Medical Association in 1903. In this document which is published each year with the transactions of our State Society, these relations are put down as duties and they cover every possible contingency which may arise in mehical affairs. They are worthy to be pondered and obeyed by every practician of medicine. Some physicians instinctively follow these rules without, perhaps, ever having seen them; others seem never to understand them even after hard study. These misguided ones are constantly furnishing examples of those physicians who do not "get along" with their professional brothers; who are in hot water at one time or receiving the cold shoulder at another; who never feel perfectly at home with any physician—except themselves. Their disease is egotism and the remedy is to "look out, and not in." How unfortunate—how much to be pitied is the man who cannot live up to the principles of medical ethics, or in other words, the requirements of a gentleman! It must be on account of a hopelessly blunted moral sense, for the language of the "principles" is "so plain that," in the words of our immortal O'Hagan, "the wayfaring man though a *doctor*, need not err therein."

Instead, therefore, of considering the special laws laid down for the guidance of physicians, it shall rather be my aim to mention some common-place matters, which will serve to illustrate the principles involved. Let it be understood that both points of view are taken—the layman's and the physician's. At the outset we are confronted with the incontrovertible fact that a layman, as a rule, is not a competent judge of the physician's ability. One employs a doctor either because of some stray piece of reputation floating about, because of some social or business connection, or because propinquity compels it; and continues to employ him, if he is personally agreeable. There is no absolute standard by which to rate the physician according to the layman's estimate. Hence, the flourishing of unworthies and the employment of certain physicians by good men who ought to know better. For, be it known, that there are those in our profession, as in all others, who profess more than they confess, and that all are not of the same mental or moral capacity. There is a somewhat general impression that because a man is a doctor he is capable of knowing and doing what all other doctors know and do. The study of medicine does not bestow on a man more brains or better reasoning power. He is the same being as before, with an amount of specific knowledge added. According to the measure of his individual capacity his reasoning power is trained and he is furnished with more tools for his mind to use. How does he employ them? That is the test. The belief is prevalent also that for some ailments almost any doctor will suffice. This is a grave error—a dangerous idea. The basis for all successful treatment is a correct diagnosis and the more promptly it is made, the better. This is as necessary in an apparently simple illness as in one of more serious aspect. The ability to decide what the disease is includes the skill to determine what it is not—a question, sometimes, of great moment. By fair criterions we decide that physicians shall be judged by what they do and know, and that they are not all alike. "One star differeth from another star in glory."

But if the layman is not capable of rating a physician according to actual merit—and he is not—it is scarcely to be wondered at that medical ethics is so little understood.

By the very nature of things the associations of physicians with one another involve delicate and personal matters. Their affairs are private, their confidences sacred. These conditions account largely for the misunderstandings, the bickerings and the jealousies among physicians, especially in smaller communities. One imagines that the other has made an unprovoked fling at him—and sometimes he has; another, that he has been ignored and snubbed; and still another, that a patient has been stolen from him. At any rate, bad feeling is now and then engendered, and often it is not eradicated by volumes of explanation or by years of waiting. The very close personal relation between doctor and patient may account for the unfortunate state of affairs. But, really, there is no good reason why these things should be. Social intercourse ought to be as free and as pleasant among physicians as among the members of other professions. If opposing attorneys, who swear at one another in the court house, can go outside, slap one another on the back and make ready another case in which they are associated on the same side, why cannot doctors follow their example? Why should we not leave off our professional robes for a time and forget our personal affairs long enough to mingle with "those of like faith and order," who are co-laborers in the same field?

The signs of the times indicate that we are coming more and more into better social relationships and the day is sure to arrive when this matter of one doctor being at "outs" with another will be as obsolete as the long forgotten superstitions of mediæval medicine. I am an optimist concerning this question. Professional bickering is a relic of sequestered provincialism, of the self-centered conditions of a fast-disappearing period. The most potent factor in the improvement has been the medical society—county, state and national, but particularly the home-meeting, where one comes into closer contact with one's colleagues. Show me the man who is a continual cause of strife among his fellow-physicians, and I will prove to you that he is not in good standing in or that he does not attend regularly his local society. Or point out to me one who constantly offends against the prescribed rules of conduct in medical life and I will stake my all on the assertion that he has never mingled enough with his professional brothers to learn what is decent behavior. Even the demands of common courtesy are unknown to some, for these requirements are learned only by association. The gathering together in societies is essential, not only for the purpose of organization, but chiefly for the clearer view of that science to which we are devoting our lives. Nothing so surely blots out personalities as the sincere study of scientific problems and the devotion to a profession for its own sake. I love to think of us all as a band of seekers after truth, whose aim is to restore, whose mission is to heal—broad enough to disregard the personal equation, strong enough to keep the strait and narrow way. "And the truth shall make you free."

Doctor and patient! What memories arise instantly in the minds of all of you when these words are spoken! The most sacred relation known between two human beings is that existing between doctor and patient The physician comes into closer contact with the people in a community than do either ministers or lawyers. A man whom the church and the law regard as immaculate may be known to the doctor as a profligate in his inner life and a scoundrel at heart. The physician carries with him the secrets of life "even to the third and fourth generation." He, therefore, has most abundant opportunities for studying human nature, that weak element in us, with which we excuse more than a multitude of sins.

There are certain obligations between doctor and patient that go without saying. The patient is expected to be considerate, truthful, and just; the doctor should be faithful, honest and kind. One should cooperate with the other in order that their common enemy, disease, may be conquered. The doctor has in his patient a strong ally, if he will but make the most of him, while the patient must look upon the doctor as his most trusted friend and leader, who shall carry him through trying ordeals and painful experiences. and who has no other thought than to do what is best for the sufferer. On both sides there ought to be the finest spirit of confidence and good will.

But it is not ever thus. It is not always the "magic touch" the "fevered brow," the "noble profession," the "grateful patient." There creeps in to disturb and to annoy, the meanness of human nature, of which Dr. Deems said there was "lots in folks as well as in hogs." So wide-spread is this disagreeable personal element that a celebrated French physician defined the practice of medicine as a "melancholy round of attendance on misery and an unmanly submission to unwarranted peevishness." Although this view is too gloomy, such a thought holds valuable lessons for us.

Unless a doctor recognizes the necessity and value of studying the moral natures of his patients—their hereditary qualities and the influences of their environments, he

cannot be a successful practician of medicine.

The most curious phase of this question is the somewhat natural desire of a patient to keep something from his doctor—a trait that none but physicians (and observant ones) realize in its full import. It would be astonishing to the people in this audience if they could appreciate how often a man will sit in his physician's office, where he has come to obtain advice, and lead the doctor off the track by telling deliberate falsehoods, and the patient would be equally astonished to learn in many cases that the doctor knows he is lying. Such things as this, it is true, are the exceptions, but they are of almost daily occurrence with busy and watchful physicians. A trained mind, stored with the knowledge of human frailty, and guided by a careful physical examination, will usually tell the medical man all he wishes to know. This is fortunate.

Another phase is presented by the man who refuses or avoids medical counsel, because he is afraid the doctor will put him to bed, cut down his diet or tell him to stop work and rest. Now the man realizes at once that he ought to do these things: if not, why should he suppose that the doctor would so advise him? The physician has no desire to control a man's habits, to regulate narrowly his life and to place restrictions upon him. He would gladly cure his patient without these. If it is the doctor's opinion that the sick man should lie in bed or be on a liquid diet, this seems to be the only course to pursue. How difficult it is for us all to sacrifice our personal desires for what our consciences tell us is the absolute right! A little boy once said this was a hard, cruel world, because every thing that he wanted to do was wrong and everything good to eat was unhealthy. Are we not all children of a larger growth? But these people of whom we have been speaking are those who cry with much vehemence: "Oh! yes, always do what your doctor tells you; what's the use of having a doctor and paying him if you don't follow his directions?" The only use in their cases seems to be to do just what they please, to carry out just as much of a physician's orders as will not conflict with their own likes or dislikes. By large classes of people doctors are looked upon as chronic objectors, who go about seeking to find something which they can order somebody to stop. Let me say emphatically that the doctor is not an autocrat, a tyrant, not veen an exhorter or a pleader, but a medical adviser in the passive voice. There should be no getting down on the knees and begging the patient to do his bidding. The man is a free agent; he consults the doctor; a certain line of treatment is advised; the man is at liberty to carry it out or not, as he chooses. The responsibility of the medical man ends with the advice given. Many imagine that it is to please the physician that they obey his orders, that they confer a great favor on him every time they take a dose of medicine. It is hard to make them see that the treatment is intended to do good to them, not to the doctor. Like school children, who are constantly endeavoring to shirk any duty, they fail to see that they are cheating themselves, not the teacher. The remark is so often made that the doctor sees the sick man at his worst, on his back, suffering; and that, therefore, he should excuse the man for all sorts of weaknesses and meanness, on the ground that the man is not himself. I claim that the patient, unless he is delirious or comatose, is very much more himself, with his shell off, with his society manners laid aside and his true disposition revealed. His moral nature can then be observed in its primitive state. We can find out whether he is considerate of others, whether he is courageous in the presence of pain, whether he wants to do right. True, illness of any kind is apt to make one disagreeable, but it does not add anything new—only brings out the old.

It is wonderful how people neglect to take a doctor's advice, to what ends they will go to deceive him and then how ready they are to blame the doctor if any thing goes wrong. I will acknowledge that most people do not cast the blame on their doctor unjustly; but many do and, generally, for the most trifling reasons. Just as a physician commonly *makes* his reputation by the smallest things, so in the same way he often *mars* or loses it. The conscientious medical man throughout all ages and countries has silently steeled himself against this and has plodded along,

"Knowing if he won the battle, they would praise his Maker's name;
Knowing if he lost the battle, then the doctor was to blame."

The gratitude of patients is worth much to physicians, more than any praise which could be paid. How many times when a man is flat of his back, would he offer his whole fortune to get well, and when on his feet give nothing to the doctor in return save, perhaps, abuse for keeping him down so long; or promise thousands before an operation and not even render thanks afterwards.

"When the devil was sick, the devil a saint would be;
When the devil got well, the devil a saint was he."

Alas! how often is it that "gratitude is a

lively expectation of more favors to come." In the experience of nearly all doctors among the most ungrateful patients are those who receive the largest amount of charity work. The man who gets the attention and pays his money for it, feels that he has received full value and is accordingly grateful. It has been said that if you wish to make an enemy of a man, do him a personal favor or lend him money.

Turning away from this baser side it is refreshing to know that there are higher and better things in a doctor's life. To feel that we have been instrumental in saving the life of even one human being, be he grateful or ungrateful, scoundrel or gentleman, is a noble and satisfying reflection. Nothing can take from us the consolation arising from a knowledge of duty well performed, suffering relieved, death averted. And yet the moral attitude of his patient must always have its influence on the physician, who is also human. A doctor would prefer a whipping to entering the doors of some homes; there are others in which the hard work he does is never irksome. The difference lies wholly in the moral sense of the people themselves. It is natural to separate the chaff from the wheat; to cast some people entirely out of our lives, while we grapple others to us with hooks of steel. A great part of a doctor's success lies in his ability to understand folks, their goodness and their meanness, to weigh their moral natures in the balance of cold logic.

But after all, my friends, our lives are what we make them and we are to be influenced less by what others may say or do than by what we ourselves feel or think. The only kernel of nourishing that can come to us must be derived from cultivating that particular plot of ground which nature has given us to till. No one ever advanced by pulling down others. Merit never goes unrewarded. Emerson has put it in this way: "If a man can write a better book, preach a better sermon, or make a better mouse-trap than his neighbor, though he build his house in the woods, the world will make a beaten path to his door." The medical profession (or "procession" as some one recently called it) has room always for those of character and brains who are willing to sacrifice their lives in its service. Our vocation is a profession, not a trade; a science, not a business. We want those who can realize this distinction—who know what it means to be gentlemen and to follow the golden rule, who stand as examples of sound morals and manners in the conduct of the medical life. We do not welcome those who cannot or will not live up to these standards. It will not take many more years for the general public to perceive that the endeavor to perpetuate the high mark of our calling is benefiting them as well as the profession. Whatever injures the physician injures the people. Whatever is against ethics is against the patient.

With these ideas before us, we have nothing to fear. We care not for quackeries, isms, pathies, and the like. Let us not forget what Edmund Strudwick spoke 58 years ago: "Neither the apathy of friends, the cold neglect and deep injustice of legislation, nor pampered quackery and empiricism can stay its onward course. True medical science will, like the majestic oak, withstand the shock and storm of every opposition. It has been beautifully compared to a star, whose light, though now and then obscured by a passing cloud, will shine on forever and ever in the firmament of heaven."

202-203 Tucker Building.

Tetanus.†

By Charles T. Harper, M. D., Wilmington, N. C.

Tetanus, as you are aware, gentlemen, is an acute infectious disease, that has been known, recognized and written about for many, many years, and is caused by the bacillus teteni, discovered by the German investigator, Nicolaier, in the year of 1885. It was that celebrated Japanese bacteriologist, Kitasarto, who first succeeded in making pure cultures.

This bacillus is a long, slender rod, one end of which is often occupied by a spore, this distends the rod into a pin or drumstick shape, it is about 1-8000 to 1-10000 of an inch in length, is anaerobic, grows at ordinary temperature and when injected into an animal produces typical tetanus.

This bacillus generates a toxin which passes to the nerve centers, not by the way of the lymphatics, but by the plasma of the nerve fibres, and according to Babes, it is necessary that the axis cylinder preserve their normal integrity in order that the nerve fibres take up the tetanus toxins, and conduct them in the direction of the nerve centers of the spinal cord, and thence through the centripetal neuron to the muscles of the same region.

It is known that the intravenous injection of tetanus toxin is followed by tetanic contraction of all the muscles of the body simultaneously, because the toxin is absorbed synchronously by all the nerve endings.

This bacillus is widely diffused over the world, occurring in all climates, at all periods of life and at all times.

It occurs more frequently in warm weath-

†Read before the Tri-State Medical Association meeting at Charlotte February 18, 1908.

er than in cold, and excepting tetanus neonatorum more frequently in people between the age of ten and thirty, it is found in the soil of gardens fertilized with animal manure, the manure of stables, the discharges from healthy animals, the collections under the finger nails, and the dust of the air, whereby it may be carried into the respiratory or alimentary tracts where it may set up their specific lesion in the presence of diseased mucous membrane, causing the so-called idiopathic or spontaneous cases.

The usual method of its introduction into the system is by traumatism and the instrument may be splinters, nails, pitch forks, blank cartridges, or it may be introduced by the use of contaminated instruments, ligatures, serums, or vaccine matter, and some times it occurs after severe contusions.

The period of incubation varies according to the severity of the infection or the resisting power of the individual, and is anywhere from one to twenty days, the longer the period between the infliction of the injury and the appearance of the symptoms, the less severe will be the case.

In post-mortem examinations of tetanus cases we find few positive lesions.

In acute cases the brain is heavy and dense, the gray substance is hyperæmic, in older cases the brain is softer and œdematous, the meninges more moist, and in the ventricles are greater quantity of fluid and some times small hemorrhages.

The anterior horns of the spinal cord are usually injected and are often softer, the bronchi are frequently the seat of catarrhal inflammation, the lungs œdematous and in chronic cases in a state of splenization inferiorly and posteriorly. The abdominal organs are hyperæmic and in older cases the beginning of parenchymatous degeneration. The muscles do not show anything special.

The nerves which lead from the point of infection are some times thickened and inflamed, here and there we find nodular thickenings.

The diagnosis is usually easy and is made by the usual history and characteristic mode of invasion, especially the early appearance of trismus followed by rigidity of the cervical, dorsal and other muscles.

Chief among the affections which bear a clinical resemblance to tetanus are cerebrospinal meningitis, hysteria, hysteroepilepsy, tetany and strychnine poisoning and they are more or less easily differentiated.

In the majority of the cases death ensues and the mortality is highest in those instances that arise after severe traumatism and negligence in prophylactic treatment. The late appearing cases, following an injury, gives the most favorable prognosis. The mortality rate is for all cases and all ages about 80 per cent.

It was my pleasure some few months ago to see two cases of tetanus and as the cases were so very typical I will relate the symptoms as they appeared in the case that recovered.

A. McC., colored laborer, age 18, was admitted to the J. W. M. Hospital, December 10th, 1907, giving the following history: On December 3rd he stuck a nail in the ball of his right foot, there was little hemorrhage at the time, he applied tar and tallow (a household remedy) to his wound, it soon healed and though tender it gave him little or no trouble. On the sixth day afterwards he noticed some stiffness in the muscles of the jaw, and was not feeling so well, and as the other muscles began to get stiff the next day, application was made to me for permission to remove him to the hospital, it was granted, and on admission he presented the following typical picture of tetanus: Patients muscular system markedly stiff, massiter muscles rigid and tense, the borders are well defined, the cervical muscles and in fact all the muscles are stiff, he has tonic spasms of the whole body lasting about one half minute, he cries out when spasms occur, he is lying on his back, limbs extended and the lumbar region is held up from the bed on account of the contraction of the muscles of the back. When left alone he prefers the lateral position with his face away from the light, he keeps very quiet except when the spasms occur which is quite frequently and are produced by external stimulation, as the turning on of light or the sudden jarring of door or bed.

He lies there with his eyes half closed, forehead wrinkled, corners of his mouth drawn and lips protruding, producing a distinctive smile on his countenance, he complains of pain in his chest and abdomen, his breathing is a little hurried, pulse 106, and his temperature 101 1-5 degrees. During the interval of the spasm he could open his jaws about one-half inch, and swallowing was little interfered with except during a spasm. Feces and urine were voided involuntarily.

The spasms continued quite frequently for the first few days and patient received very little rest, which weakened him considerably, the spasms gradually grew less in duration and frequency until December 27th, when they ceased except on strong stimulation. With the abatement of the spasms the stiffness of the abdominal and other muscles gradually grew less and only the stiffness of the massiter muscles persisted until January 23rd, lasting longer than the spasms.

On the seventh day after admission he called for bottle before voiding urine, and bowels are under control. There was some bronchial irritation, no blood or albumen in urine during the disease.

The highest temperature was on the second day after admission and was 102 3-5 degrees and slowly subsided until it became normal thirty days after admission to hospital.

He was very weak and emaciated after the attack, but gradually regained his strength and was discharged from hospital January 15th; time in hospital 36 days.

On admission he was isolated, given a bath, wound was opened up, freely curetted and washed out antiseptically and then packed with gauze. Three thousand and five hundred units of tetanus antitoxin was administered to him hypodermically into the left thigh, the hypodermic injection of morphine and the internal administration of chloral hydrate and sodium bromide were given at regular intervals to control the spasms.

His bowels were kept open by the use of cascara segrada, once during the disease a mercurial purge was administered, whiskey and strychnine sulphate were given freely as stimulants in this case.

The nourishment consisted of milk, lemon albumen and chicken broth at regular intervals, about thirty ounces being consumed during the twenty-four hours, later egg nog and milk shakes with the addition of brandy were added to his diet and on December 26th he was put on hospital semi-liquid diet and moved in to the general ward. His teeth were washed with peroxide of hydrogen before and after taking nourishment, his body received daily sanitary baths and alcoholic rubs. There are quite a number of drugs that have been recommended in the treatment of this disease, but those that in my opinion give the best results can be counted on the fingers of one hand, and are morphine, chloral hydrate, the bromides, carbolic acid and antitoxin, the carbolic acid I have not had experience with, but if I am ever so situated that I cannot get the antitoxin I will surely give it a trial.

The point I wish to emphasize and bring to your attention is this: to reduce the high mortality in tetanus you must keep it from developing; we must remember that the bacillus is anaerobic, therefore cannot grow if the wound is exposed to the air; the fact that the spores of this bacillus is not killed by a single boiling, even if boiled for some time, therefore the necessity of repeated boiling of instruments used in tetanus cases, and the destruction of all discharges and bandages from the wound.

The instruction of midwife in the practice of aseptic and antiseptic midwifery, the education of the public that cob webs, clay, and the dirty rags they put on wounds sometimes contain the germs of tetanus, and will surely kill, the early and free opening of all wounds where there is a chance of infection taking place and the washing of these wounds daily with some antiseptic solution, the early administration of tetanus antitoxin, and when you cannot get the antitoxin the substitution of one per cent. carbolic acid in normal salt solution given hypodermically along the spine.

I hold and contend that it is just as imperative on us to use tetanus antitoxin or carbolic acid solution when we cannot get the antitoxin in injuries where there is a possibility of tetanus bacilli infecting as the use of diphtheria antitoxin in preventing the development of diphtheria after exposure.

Epilepsy and Its Treatment.

By William Francis Drewry, M. D., Petersburg, Va., Superintendent Central State Hospital; President Medical Society of Virginia.

Epilepsy is the strangest and probably the most dreaded disease that has ever afflicted man. Geographically it has no boundary. No country, no climate, no race, no class, no age, is exempt. Neither the great and powerful nor the meek and lowly, neither the ruler nor the peasant is immune. It respects the dweller in the hut no less than the lord in his mansion. It defies and baffles science as does no other disease.

According to Spratling, when one has a "disease or disorder affecting the brain, characterized by recurrent paroxysms which are abrupt in appearance, variable in duration, but generally short, and in which there is impairment or loss of consciousness, together with impairment or loss of motor coordination with or without convulsions," he is an epileptic. "At any rate, epilepsy seems essentially an affection of the cerebral cortex, the symptoms being manifestations of perverted cortical activity or of a suspension or inhibition of its normal activity, whether in the motor, sensory or psychic sphere."

There are so many manifestations of the disease, so many and variant types of it, and it is so protean in its character, that we might well call it "the epilepsies" instead of "epilepsy." For instance, we speak of "grand mal," which is the severest form; "petit mal," the less severe form; "cortical" or "Jacksonian," a localized fit, or a

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monospasm; "masked" or "psychic," a periodical lapse of consciousness, varying from a minute to several weeks, and usually without, though sometimes accompanied by, convulsions; traumatic, due to brain injury; reflex, resulting from nerve irritation remote from the brain; genuine or idiopathic, in which no post-mortem lesion is found; sympathetic, caused by, or a symptom of, another disease; infantile; senile, etc.

Despite the facts that the microscope and the laboratory have been energetically utilized, that the chemist, the pathologist, the clinician, the surgeon, the neurologist, have for a long time been searching to find out the real nature of the disease, its cause, pathology, prevention, cure, we have to admit that we are yet in semi-darkness.

In the words of Vorkastner, of Berlin, "an admission of our ignorance need hardly be emphasized." He further says: "Any one who attempts, at the present time, to give a description of epilepsy stands by no means upon the firm foundation of positive facts. This existing uncertainty, however, goes still further; it includes the limitation and extent of the conception of epilepsy, and this may in itself be designated as exceedingly indefinite."

But with continued research and study which is now being systematically conducted on a large scale in the laboratories, institutions, and clinics in great medical centres in this country and Europe, light will be sure to dispel the existing darkness. Such has been the history of medical science.

Smallpox, diphtheria, yellow fever, has each been robbed of its terrors, through the discoveries of Jenner, Behring, and our own Reed. "So will," as Spratling says, "epilepsy yield up the long-kept secret of its cure." Truly, the light is breaking, and we are beginning to solve the problem of etiology, upon which we can base rational treatment. We shall finally depart from empiricism.

Among the special objects of an association which has existed in this country for several years, is "to stimulate the study of the causes and the methods of cure of epilepsy." In other countries similar associations are at work upon these great problems. Throughout the world, where medicine exists as a science, there has been a great awakening in the study of this disease complex, and in the care of its victims. Good results are sure to follow.

In the treatment of so complex and protean a malady as epilepsy, using the term in its usual significance, the physician has to get at it in several ways. Medical or surgical means alone will not suffice. In the present stage of our knowledge of the pathology and etiology of true epilepsy there is little promise of medical means by which alone the disease can be cured. In the less "fundamental convulsions" cure does often take place under prompt and vigorous treatment. The checking or abortion of the paroxysmal convulsion of itself is not sufficient. It must be borne in mind that the influence of drugs is not permanent and that their administration must be persisted in for many years. Simply moral, educational, hygienic and dietetic supervision fail to meet the requirements. There must be a suitable combination of all these and more besides, if satisfactory results are to be obtained.

In dealing with this subject the first point to claim attention should be prophylaxis. Here we have to deal with the neuropathic or the psychopathic child from its birth, through its infancy, its school-life, the period of puberty. Such a child has probably to bear its share of the burden of a bad heredity; epilepsy, insanity, alcoholism, or some other psycho-neurosis in a parent or other ancestor.

The best statistics show that 80 epileptics out of every hundred acquire the disease before their twentieth year, and that sixty-six per cent. of all epileptics have a direct or indirect heredity of some distinctly predisposing disease.

Of 950 cases admitted in one year at Craig Colony, the epilepsy appeared in 801 before the 21st year, in 316 before the sixth year, in 83 during the first year, and in 95 the onset occurred during the 12th or 13th year.

On the appearance of the initial fit in a child, whatever the apparent cause, every means should be utilized to prevent a recurrence, lest epilepsy, a most insidious enemy of childhood, be developed then or later. There may be infantile convulsions resulting from trivial causes, from fever, intestinal worms, teething, or other conditions of a reflex character. There may also be night terrors, insomnia, somnambulism, nocturnal incontinence, muscular twitching, "habit-spasm," choreiform movement, errors of refraction; or the little patient may be unusually shy and timid or over self-conscious and sensitive. All these are danger signals of more or less significance, and should be watched.

From the beginning of life of such an individual, those who have to do with its training, education and treatment, should guide it along lines of right living, giving proper diet, exercise without excitement or fatigue, avoiding stress, strain, emotion, and promptly treating every diseased condition, with the view of fortifying against the development of epilepsy, chorea,

insanity, etc., particularly at the critical periods of life.

Epilepsy, having its chief predisposing cause in heredity, there should be laws in every State similar to those now in force in Connecticut, Ohio, Michigan, and probably other States, designed to prohibit the marriage of persons suffering from the disease in cases where the woman is under 45 years of age.

It is most important to treat the disease in the earliest stages of development. There should be no delay after the first convulsion, in instituting prompt measures and to continue them for at least three years, and longer if other attacks occur. There should be eternal vigilance in the administration of those medical remedies which seem to be most suitable to the individual case, combined with a proper dietary and physical and mental hygienic regimen. The physician should prescribe one with as much precision and persistency as the other. Without the earnest cooperation of the patient and his family or friends in carrying out the physician's instructions, little good can be expected to result. The so-called epileptic habit or change will become fixed, and a chronic incurable condition will inevitably follow, and that frequently leading to insanity and dementia.

Before outlining the treatment in any case a thorough physical examination of the subject should be made and a careful personal history obtained, together with the duration of the affection, the time, frequency and character of the attacks. Every co-existing affection that can possibly enter as an exciting causal factor, or have any reflex influence, should be treated. In short, every possible source of irritation calls for consideration.

All agencies having a possible harmful effect, such as alcohol, tobacco, coffee, strong spices, or other stimulants, all of which have a deleterious effect, should be prohibited. The personal hygiene, the environmant, the occupation, the habits, the diet, should all conform as nearly as possible to the simple life. The epileptic should live as much as possible in the open air and have congenial employment devoid of danger, excitement or over-fatigue.

The diet is exceedingly important. Authorities, however, are somewhat at variance as to what constitutes a proper diet, yet all are practically agreed that certain dietetic modifications are of value, particularly in the early stages of the malady. This is largely a matter for special consideration in each case, though certain general principles apply to all alike. As some one has said, each case must be studied with patience, in order to adjust the nutritional balance—the fine line that separates physiologic processes from those that are pathologic.

The epileptic should be well nourished. He needs probably more food than other individuals and eats more voraciously, because, as one experienced epileptologist says, there is perhaps a demand and a necessity for constantly restoring bodily energy that, through periodic nervous discharges, is constantly going to waste.

The food should consist largely of vegetables, excepting cucumbers, cabbage and a few others, milk, eggs, butter. fruits, cereals, bread stuffs. Meats, particularly veal, pork, ham, or anything fried in grease, berries having small hard seed such as raspberries, pastry, cake, should be prohibited, in most cases. To sum up, the diet should be a mixed one, containing in proper proportions albumin, carbohydrates and fats. In many cases it has been observed that there is a sort of parallel in the conditions of the digestive tract and the frequency or severity of the seizures. Dr. Munson, pathologist at Craig Colony, believes that the relation between the digestive tract and epilepsy is an important one, and that the laboratory findings will yet be a guide to therapeutic intervention.

Dr. Spratling, Superintendent of Craig Colony, has designed a most useful chart as a guide to general practitioners in keeping a history of the seizures and in the matter of the dietary. The latter is so practical I shall insert here:

FOR BREAKFAST.

Fruits—Grapes; grape fruit; oranges, apples, peaches, pears, cooked or raw, as usually served; prunes.

Cereals—A modicum of cereals only is advised. While they are nutritious, used to excess they tend to weaken the digestive system. They require to be thoroughly cooked, and include oatmeal, cracked wheat, hominy, grits, etc.

Eggs—These are of especial value and may be eaten in almost any form, except fried; soft boiled, scrambled, poached on toast, omelet souffle.

Bread—Ordinary baker's bread, not too fresh; Graham, gluten, entire wheat, and corn bread muffins. Toast in any form is especially good.

Liquids—Coffee, tea, milk, cocoa, chocolate. A minimum of coffee and tea is advised. The best drink is milk.

FOR DINNER (noon)

Oysters—These may be raw or cooked any way, except fried.

Soups—Vegetable, thoroughly cooked; tomato, plain; tomato bisque: consomme; pea, potato, corn and lamb broth. Mock

turtle and other rich soups should be avoided.

Meats—Most epileptics can eat some meat, not only with impunity, but with benefit. It should be only a part of the noon meal and consist either of lamb, beef, mutton, fowl of almost any kind, or baked or broiled fish. The quantity of meat should be small in either case. Fowl or game should be broiled, roasted, or fricasseed; never fried. Rich sauces should be abjured. Simple meat sauces do no harm.

Vegetables—Potatoes, white or sweet; spinach; carrots; parsnips; onions; lima beans; peas; okra; squash: string beans; asparagas; eggplant (broiled); green corn; tomatoes; and turnips. *Avoid cucumbers and cabbage in any form.* All vegetables should be thoroughly cooked.

Relishes—Olives, radishes, lettuce, celery; peanuts and almonds, plain or salted.

Dessert—This should always be simple and consist of light puddings, such as bread, farina, rice, tapioca, custard; cheese and crackers. Pudding sauces should be plain and never contain wine or alcohol in ony form.

FOR SUPPER.

The last meal of the day should be eaten not less than an hour and a half or two hours before retiring. It is best for an epileptic to retire on an empty stomach, so this should be the lightest meal of the day, consisting of toast, crackers, bread and butter, eggs in any of the forms named for breakfast; prunes, stewed or baked apples, pears, weak tea, cocoa, chocolate. Hot corn bread and boiled hot rice two or three times a week if desired.

WHAT NOT TO EAT.

Small berries with hard seeds, such as blackberries and raspberries; cake in any form; pastry in any form; pork, veal, ham, or anything fried in grease; all alcoholic drinks; even the lightest beer should be avoided.

The principles underlying suitable diet for epileptics are simple. They embody the the use of bread stuffs, butter, milk, fruits, cereals. etc., to the exclusion of too much meat, pastry, and other less digestible articles. The above diet is not presented as final for adaptation *in toto* in each case, but under trial it can be made to suit any in which the requirements are not unusual.

Following the original suggestion of Hughlings-Jackson, and more recently the advice of Ricket and Toulouse, who had made extensive investigation, what is known as the "Salt-Starvation" treatment has received considerable attention. This consists in excluding table salt from the dietary, and substituting therefor small quantities of sodium bromide. It was thought that as the chlorides and the bromides were homologous in properties, the efficacy of the bromides might be due to their replacing with greater energy the more common chlorides.

It is claimed by some that in cases requiring large doses of bromides and in those in whom the bromides are not well borne, or intoxication is easily produced, this restriction in the dietary is of special value. Turner, a distinguished English authority, concludes, after a series of observations, that the general result of the treatment has been to show, that in some cases, "salt-starvation" has proved a useful adjunct to bromide medication, while in others little benefit has resulted. In his cases. however, meat, fish and fowl were also eliminated. There were, he says, some cases in which the attacks were diminished during the treatment, and others in which the improvement lasted after the salt-free diet had been stopped. The effect upon the major cases was apparently more satisfactory than upon the minor ones. In the mental condition there was observed some improvement and in the dyspeptic symptoms marked improvement.

Dr. Pierce Clark, of New York, regards the dietary of epilepsy more important than its drug treatment. He warns against starchy indigestion in forcing a too exclusive vegetable diet. He believes that the bromides form an essential part of the successful treatment of all epileptics, but it should be combined with a suitable dietary. While he has not observed the miraculous result attributed to the salt-poor diet by the French originators, he regards it as one of the most signal advances in the bromide treatment that has appeared since the sedative was introduced by Lacock in 1857.

In regard to medicinal remedies for epilepsy many have been tried, and one after another discarded as useless, until there are very few that can be said to possess special therapeutic value, and even those are variable and uncertain in action. Bromide is still the sovereign remedy.

In every case. as soon as the disease manifest itself, the bromides should first be tried. If amenable to this drug, favorable response, an arrest or lessening of the attacks, will be apparent within a short time, say a year. No doubt the alkaline salts of bromine, when judiciously administered, reduce, in a majority of cases, the number and severity of the seizures in the early stages of the disease. In chronic, confirmed cases, however, the bromides are of little value, though they may serve to bring

about slight reduction in the number of the seizures. If suddenly withdrawn from one who has long been accustomed to taking it, status epileptous may result.

The bromides act by lessening the irritability of the nervous system, reducing the intensity of cerebral function and reflex activity. One of the chief reasons why the results from the bromides have so frequently been disappointing is due to the injudicious method of administration and the dosage.

Avoid too large doses. Usually not to exceed a dram and frequently less during a day is sufficient, whether one or a combination of the salts is given. Larger dosage continued long will, from the accumulative effect, almost certainly produce toxic symptoms—bromism—to the detriment of the patient. Be guided in the quantity given, the time it is given, and the number of daily doses, by the effect on the patient and the time the seizures usually occur. Administer the remedy in large quantities of water. On account of accumulative action, it is well to suspend their use temporarily, from time to time, and flush out the system by means of a purgative and diuretics. Knowing the time at which the seizures usually occur, give an increased dose just prior thereto, instead of following the usual method of giving a dose after each meal. It is sometimes useful to give several of the bromides in combination, viz: the bromides of soda, ammonia, strontium, lithium to which may also be added arsenic, gentian, or nux vomica, etc., as may be indicated.

In senile (arteriosclerotic) epilepsy, or in cases of low arterial tension, functional or organic diseases of the heart, or when a heart tonic is indicated, digitalis, strophanthas, adonis or nitro-glycerine, may be combined with the bromides with benefit. In anæmic, debilitated, or neurasthenic cases, Dana advises a combination of bromide of soda with glycerophosphate of soda. Iron may also be given with benefit. A combination, recommended by Bechterew, of the bromides with adonis vernalis and codeine gives good results in some cases. Bromipin (bromine and sesame oil) and bromalin are new remedies of some value, especially in feeble or asthenic cases. Biborate of soda, so highly recommended by Gowers, as an anti-spasmodic, is a valuable remedy when given with bromides. Belladonna, similarly administered, sometimes proves efficacious, when the bromides alone fail. What is known as the Fleichsig treatment—the opium-bromide method—seems to be more beneficial in the early stages or in young subjects, than in confirmed cases. The method consists in giving aqueous extract of opium, beginning with three grains a day or less and gradually increasing the dose until 10 or 15 grains are taken daily. After continuing this treatment six weeks it is suddenly discontinued and large doses of bromide substituted and the dose thereof gradually reduced until 20 or 30 grains a day are taken. Horsenettle (Solanum Cariolinese) has considerable value in some cases, particularly those of a robust constitution. Serotherepy was introduced in 1903, but so far has not been productive of good results.

Whether the auto-toxic theory of the etiology of epilepsy is well founded or not, it seems that some cases have been benefitted by the so-called intestinal antiseptics; beta naphthal, salol and others. Certainly occasional doses of calomel and salines have apparently some influence, certainly in the mental hebitude and irritability. It is a detail in treatment that should never be neglected. Likewise, diuretics—the bromides being eliminated chiefly by the kidneys—should be freely given. Baths are useful adjuvants, in fact indispensable in encouraging needed bodily elimination.

Status epilepticus, that is, a prolonged and an increasing number of seizures, is a dangerous condition and requires heroic treatment. Large doses of bromides and chloral, and even morphia, inhalations of chloroform or oxygen, hydrobromate of hyoscine, ice water for the high temperature, are indicated to check the serial outbursts. In the stuporous stage which follows, strychnine, stimulants, digitalis, etc., are required. Warm baths, saline enemeta: nutritious liquid food should be a part of the regular treatment of the post status depression.

The physician should never neglect to advise his patients and to protest against the use of any of the various "remedies" which the quacks so boldly advertise in newspapers and second-rate magazines, in a manner that deceives the ignorant and the uninformed. Such so-called "cures" are worse than useless—they are often positively harmful.

In respect to surgical treatment of epilepsy the concensus of opinion of authorities is that it has not shown very enticing results in genuine idiopathic cases. It has, however, proven of decided benefit in reflex epilepsy and in epileptoid conditions, in the removal of sources of peripheral irritation. The operation, however, should be performed "before an ineradicable diffuse condition of irritation appears in the cortex of the brain."

Removal of adenoid growths, correction of astigmatism and other eye-defects, re-

lease or excision of a tight prepuce, treatment of stricture, relief of a dysmenorrhaic condition, removal of a diseased ovary, etc., combined with medical and general treatment have frequently resulted in cure of certainly epileptoid convulsions. It has frequently been urged that removal of the ovaries would cure epilepsy, but unless diseased condition exist. such procedure is irrational and unjustifiable. Before any radical operation upon the reproductive organs in women, there should be abundant caution, for the reason that such operations are often negative in results and sometimes positively harmful, particularly to the mind of the patient.

Many cases of traumatic psychic epilepsy, due to an injury of the head, followed by definite pathological and localized conditions, are amenable to surgical treatment. Every case of brain injury should be most carefully examined into, and if there is depression of the skull, a blood clot or other condition that could possibly be the source of an irritation productive of epilepsy, the trephine should be at once brought into use. The earlier the operation the better the results, yet sometimes operation years after an accident results favorably.

Dr. Pearce Bailey, in a strong paper on this subject, concludes as follows:

"The indications for operation are: Evidences of local irritation, such as adherent scars, suppuration and depressed bone: localized headaches and explosive psychic attacks. If the headaches are always localized and under the site of the original injury, and if they herald the explosive attacks, operation is indicated, even if surgical indications are wanting."

The prognosis of epilepsy is serious or doubtful, yet there are undoubtedly cures, or very long remissions occurring spontaneously, or induced by suitable treatment. It is the consensus of opinion among epileptologists that from five to fifteen per cent. of all cases subjected to early and proper treatment recover, or there years of cessation of the seizures. Turner says that a "cure of epilepsy may be defined as an arrest of the seizures for a period of eight or nine years, when it will be found that ten or twelve per cent. of cures may be expected to recover.

Many influences bearing upon the curability and prognosis must be considered, viz- The hereditary predisposition; the age of onset; of frequency the seizures: their nature and the time they occur; the duration of the disease. Those who are free from inherited neuropathic influences stand a better chance of general improvement, and are not so apt to become confirmed epileptics and to suffer serious mental impairment. In those cases in which the disease begins before the age of ten, the results are the most unsatisfactory, affording the smallest percentage of recoveries and the highest percentage of mental impairment. The best results are obtained in cases developing between the ages of fifteen and twenty-one, both in respect to the arrest of seizures and the mental condition. A majority of those in whom the disease commenced between the age of twenty-one and thirty-five are apt to be less curable, but after that age the prospects of arrest or improvement are better. It is thought that this is owing to the fact that after thirty-five the genuine or essential forms seldom develop. Epilepsy occurring in old people is quite ameniable to treatment.

The frequency of the attacks has a significant bearing on the prognosis, both in producing a confirmed epileptic condition and in progressive mental impairment and dementia. Those cases having long remissions are not so apt to become demented.

The longer the disease has existed without treatment, the less favorable the prognosis. While epilepsy may occasionally be arrested after a duration of many years. and almost complete mental integrity retained for a life-time, arrest or improvement of the disease is more promising during the first five than during the second five years. Nocturnal epilepsy has a better prognosis than diurnal.

It is an established fact that the major attacks—the grand mal—are more amenable to medical treatment than those of a minor character—petit mal, The mixed type—the combined grand and petit mal—is next in order of curability, while the petit mal, or slight seizures, are the most unfavorable. Furthermore, it is true that in grand mal alone there is found mental deterioration about as often as mental soundness, generally speaking; and that in petit mal is found the least mental deficiency; while in the combined type, the greatest degree of mental impairment exists. At least ten percent of epileptics eventually become insane.

In recent years the institutional care and treatment of epilepsy has attracted deserved attention from the profession and the public generally. The results in bringing about recoveries or improvement in a good percentage of cases have been quite encouraging as compared with results attained from home treatment. The history of the colony care shows the trend of advancement in science and in the altruistic spirit of recent times. Beginning in 1848, the colony methods have gradually grown in public favor until now it is universally approved. Ohio took the initiative in this country in

establishing a separate public institution for epileptics. That was in 1893. Then a move was started in New York. under the leadership of Dr. Frederick Peterson, which resulted in the establishing of the greatest colony for epileptics in the world, perhaps. The "Craig Colony" might well have been named the "Peterson Colony," Other States have followed in line. It is worthy of note that North Carolina has recently taken an advanced position, looking to the care of her epileptics in a State institution. Your legislature has shown a liberality worthy of a great State. The late Dr. P. L. Murphy, Superintendent of one of your great institutions, did a noble work in this direction as well as in the interest of the insane. In my own State of Virginia the growth of sentiment for a colony for epileptics has been slow, even painfully slow, yet in the near future there will be in that State a great institution for these unfortunates. In 1894 I published an article in the Virginia Medical Monthly, advocating a "State Colony for Epileptics." Since then professional and public sentiment has gradually developed until today the proposition meets with well-nigh universal favor in the State. The legislature has provided for the establishment of a small colony, which will within a few years doubtless be one of Virginia's greatest institutions.

In presenting you this paper upon a subject about which so little is accurately known, yet around which centers so much interest, I must apologize for the fragmentary and incomplete manner in which I have told you things which you already knew.

Notes of Trip to Richmond—Hospital News—Items Surgical—Medical and Personal.

Letter from Dr. J. W. Long, Greensboro, N. C.

My four years residence (1893-7) in Richmond gives me a warm attachment for the place, its medical schools, hospitals, and physicians. Therefore, I like to drop my work occasionally and take a little trip to the old Confederate Capitol; now no longer "old" except in the fact of its glorious past, since even the most casual inspection will convince one that Richmond is a modern, progressive, up-to-date city in every sense of the term. But it is not of the city *per se* I wish to write but of things professional.

MEDICAL SCHOOLS.

This is the season of final examinations and I find both professor and student engaged in the serious task of trying to find out who is entitled to a diploma. I am assured that the personnel of the student body of both the Medical College of Virginia and the University College of Medicine is far above that of former years. This speaks well for the schools and is probably due to the higher standard which they have set as well as the more strict requirements of the Boards of Examiners. However, the one thing that handicaps these most excellent colleges is the seeming fact that they can not get together and make one great Medical School unsurpassed for its teaching and clinical facilities. It is to be hoped that some day this devoutly desired amalgamation may be consummated.

THE HOSPITALS.

Richmond is fast coming to be a city of hospitals. The Memorial Hospital built a few years ago, costing $150,000, with a capacity of one hundred and fifty beds easily heads the list. Here the faculty of the Medical College of Virginia do most of their work. I have seen some most excellent surgery done at the Memorial. Among the surgeons operating here are Dr. George Ben Johnston; Dr. J. Shelton Horsley, who has done much original work, especially in the domain of intestinal surgery; Dr. Lewis C. Bosher, who makes a specialty of genito-urinary surgery and who is the best all round doctor I ever knew. Also I find one of my former students Dr. Chas. R. Robins, Prof. of Gynecology, doing highly creditable surgery at this hospital. The Memorial is largely dependent upon its own resources for support. Last year its expenses amounted to $72,000, and it gave to charity patients 14,000 days at hospital service. That is a worthy charity and recalls the fact that our St. Leo's Hospital in Greensboro has during the twenty months of its existence given 3,300 days of hospital service to charity patients, which is equivalent to nine years of charity to one person.

The Virginia Hospital was organized in 1893 and with its additions cost $80,000. It has a capacity of 130 beds, including private rooms and its charity wards. The fact that its staff consists of the members of the Faculty of the University College of Medicine is a guarantee that good work is being done in this hospital.

On the evening of April 14th I had the pleasure of hearing a lecture in the Virginia Hospital by one of our distinguished North Carolinians—Dr. Carl Von Ruck, who was there at the invitation of the Richmond Academy of Medicine and delivered a most interesting and scientific lecture on "Inherited and Acquired Immunity of Tuberculosis." He had a fine audience of Richmond's representative physicians and surgeons, a number of whom participated in the discussion which followed the paper.

I wonder why our North Carolina local

societies do not do the same thing. They need not always go out of the State to get the man.

The Retreat for the Sick has a capacity for 65 beds and while it receives pay patients is largely a charity institution.

The only purely charity hospital in the city is the Sheltering Arms Hospital with 25 beds. This institution is managed by a board of lady managers and is one of the most creditable of its kind to be found anywhere. Because it receives no pay patients but only the worthy poor, it is said that its board of managers never asks the City Fathers for auything that it does not get.

St. Luke's Hospital was founded by Hunter McGuire and is now the Private Sanatorium of Dr. Stuart McGuire. It has a capacity of 65 beds and has a patronage that comes from far and near. It is a pleasure to see Dr. McGuire operate.

I did not visit it but I understand another private hospital—The William Byrd—has been established in the city.

HYGEIA SANATORIUM.

I am spending a week at this delightful institution in order to get the benefit of its famous baths and secure a little rest from the treadmill of work.

Dr. J. Allison Hodges is a native North Carolinian of whom we are all justly proud. He moved to Richmond in 1893, the year I went there to live; and it is not a violation of confidence to say that we both had a rough and rocky time of it for the first year or two. But one can now see no evidence of hard times in the case of my friend Hodges, especially if they visit him at his palatial home on Franklin Street and the magnificent Private Hospital which I propose describing for the benefit of my North Carolina readers.

The Hygeia was established in 1902; and has been enlarged from time to time at a total cost of $68,000, with a capacity of accommodating sixty patients.

The conception of the Hygeia was unique, certainly this is true so far as Southern Hospitals go. Dr. Hodges realized that there was no institution especially devoted to the care of medical cases; that almost every hospital in the South received surgical patients, and in fact made the treatment of surgical patients their chief object. The result is that a medical patient going to a hospital usually receives scant attention; especially is this true of chronic cases. In the very nature of things the general practitioner cannot handle chronic medical and nervous patients at their homes. Therefore these poor unfortunates usually beat around from pillar to post rarely getting better, but usually worse, until they become as a class a kind of stigma to the profession.

Dr. Hodges conceived the idea that a hospital built and equipped especially to meet the requirements of this class of patients would fill a long felt want and be a blessing to humanity. Besides it would dignify the practice of medicine and put this department of our noble art upon a par with surgery. With a small beginning and ever bearing in mind his ideal Dr. Hodges has developed and enlarged upon his original plans until now he has a plant and a system of which he as well as the profession may well be proud.

One feature of the work here which was early incorporated is the individualizing the treatment of each patient. This to my mind is a great thing since each case is handled according to its own peculiarities, and certainly the results justify the method. The methods employed here seem to be popular with patients as well, since I find many people here from not only Virginia and North Carolina but from far away Florida and the extreme Northern States.

It would make my communication too long if I were to describe in detail the various appliances and methods in use at the Hygeia. I will simply notice briefly the therapeutic baths, the principal ones of which are the Baruch and Nauheim Baths. I can testify to the delightful sense of exhiliration and invigoration one feels after a Baruch Bath. Not having heart disease I did not take the Nauheim Treatment, which finds its special application in circulatory disturbances.

Massage under an expert Masseur and Masseuse, electricity in all its forms, laboratory methods of diagnosis, roof gardens, open air treatment, scientific dietary, and many other methods too numerous to mention are employed to diagnose and treat the various diseases brought here.

Personally, I am particularly impressed with the prominence given to medical cases, to the absolute control of the patient's conduct, to the many exact and searching methods used to properly diagnose the case, and the individual attention given to each patient. While I came here to rest and have the baths a most careful examination of my case was made and every detail recorded: blood-count, blood pressure, chemical and microscopical urinalysis, stomach analysis, sputum analysis, history, etc., etc. Nothing abnormal was found but the examination will at least enable the doctor to give me a clean bill of health. I have improved every hour since coming here and already feel like a two-year-old in a ten acre lot. I wish every busy doctor in North Carolina would "fly de coop" at least once a year and go off and take a little rest. They would liver longer by it.

Charlotte Medical Journal

EDWARD C. REGISTER, M. D., Editor.

No. 36 South Tryon Street, - - - - -

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THE FIFTY-FIFTH ANNUAL MEETING OF THE MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA.

The fifty-fifth regular annual session of the Medical Society of the State of North Carolina will be held in Winston-Salem, N. C., June 16, 17 and 18, 1908, under the Presidency of Dr. J. Howell Way, of Waynesville. Dr. D. A. Stanton, of High Point, is Secretary, and Dr. H. McKee Tucker, of Raleigh, Treasurer.

This will be the State Medical Society's second visit to this delightful and progressive city so closely identified with the growth of higher female education, good morals, and sound finance in North Carolina. The first meeting held was twelve years ago, in 1896, at which session in Winston-Salem there were present 158 members, of a total membership of 452, making the meeting of that year the largest attended of any held by the Society, up to that date, at a distant point from the centre of the State.

When it is called to mind that we now have enrolled on the membership rolls of our constituent county medical societies nearly three times as many members as we had twelve years ago, it is to be naturally anticipated that the attendance this session will far surpass that of 1896, and rival the record-breaking attendance at Charlotte of two years ago, when over 400 members registered present.

Again it is to be noted that there is in the profession of medicine in North Carolina now a far greater degree of activity than twelve years since. Then a single medical school was struggling valiantly in heroic effort to demonstrate the fact that it could flourish in this State; now two excellent colleges of medicine with fine equipment enroll together almost 200 students of medicine, and no one questions the fact that as good work is being done in teaching the principles of medicine and surgery in North Carolina as anywhere. Then a limited number of our medical practitioners bought largely of the book and journal literature of the profession, now in every village and hamlet of the State one finds large medical libraries, and more complete equipment. Then a few of the larger towns contained hospitals, and our sick were in large numbers transported to distant centres for the relief of operative diseases. Now, almost every city in the State of even a few thousand population has one or more hospitals, some of them several, and daily as successful surgery as is performed anywhere on earth, is done by our home surgeons to the betterment of both patient and profession. In every way, except a single one, the profession of North Carolina is better off today than in 1896, and that defect (the unfortunate recognition of sectarianism in medicine by a recent legislature) it is hoped will be remedied in the future.

Professional incomes have been increased, and doctors are, with better pay, doing better work, and having better facilities afforded them and their patients.

The growth of interest in local organizations of the doctors has been a marked feature of the past few years, a better spirit prevails throughout the length and breadth of the State's medical profession, and the time is opportune for a great meeting of the Society in Winston-Salem.

Dr. D. A. Stanton, the active and zealous Secretary, is untiring in his efforts to enlist the active support of members in securing a fine program, and there is every indication of interest in the coming meeting.

The hotel facilities of Winston-Salem are excellent, the local profession are interested to make the occasion a success, and all members of constituent societies in North Carolina owe it to themselves to take a short vacation and attend the meeting of the State Medical Society.

An incomplete list of those who will read papers and the titles is herewith presented.

"The Uses and Abuses of Morphine and Kindred Drugs," Dr. D. A. Garrison, Bessemer City.

"Cathartics," Dr. M. A. Royall, Yadkinville.

"Traumatic Aneurism with Report of a Case," Dr. J. B. Gibbs, Lexington.

"Vaccine or Tuberculin Treatment of Tuberculosis," Dr. H. Bascom Weaver, Asheville.

"Adrenalin Chloride, its Use in Medicine," Dr. C. O. Abernathy, Raleigh.

"An Artificial Food Suitable for Young Infants," Dr. Chas. Roberson, Greensboro.

"An Interesting Case of Stone in the Bladder, A Study," Dr. J. M. Parrott, Kinston.

"Response to Address of Welcome," Dr. C. L. Pridgen, Kinston.

"Influenzal Arthritis," Dr. J. J. Philips, Tarboro.

"A New Method of Shortening an Ocular Muscle with Exhibition of Instrument," Dr. H. H. Briggs, Asheville.

"Outdoor Life in the Treatment of Respiratory Troubles and Some Other Matters," Dr. Paul Paquin, Asheville.

"Railway Surgery," Dr. Geo. C. Thomas,

Wilmington.

"Perforation and Peritonitis Complicating Typhoid Fever," Dr. E. C. Register, Charlotte.

"Empyema: Etiology, Diagnosis and Treatment, with Report of a Case," Dr. J. T. Burrus, High Point.

"The Value of Anti-operative Tests," Dr. C. M. Strong, Charlotte.

"Scarlatiniform Eruptions," Dr. J. S. Brown, Hendersonville.

"Pneumonia," Dr. J. A. Turner, High Point.

"Ileo-colitis," Dr. H. L. Monk, Spencer.

"Maternal Nursing," Dr. W. W. McKenzie, Salisbury.

Title not announced, Dr. W. O. Nisbet, Charlotte.

"Carbuncle: Etiology, Symptoms and Treatment," Dr. Thos. E. Anderson, Statesville.

"Pellagrous Insanity," Dr. Jno. McCampbell, Morganton.

"The Influence of the Constitutional Condition of the Patient on the Result of the Operation," Dr. Stuart McGuire, Richmond, Va.

"Reciprocity or Some Form of Recognition Between States," Dr. A. A. Kent, Lenoir.

"Pleurisy in Children," Dr. J. R. McCracken, Waynesville.

"Conservatism in Railway Surgery," Dr. W. P. Whittington, Asheville.

"Abscess of the Brain," Dr. R. G. Buckner, Asheville.

"The Physiology of the Kidney and the Essential Examination of the Urine," Dr. I. W. Lamm, Lucama.

"The Physiological Chemistry of the Alimentary Tract," Dr. Chas. W. Moseley, Greensboro.

"The Importance of a Thorough Knowledge of Biology, Bacteriology and of the Circulation of the Blood for the Successful Application of Serum Therapy," Dr. J. C. Grady, Kenly.

"Therapy of the Various Interruptions of the Blood Currents," Dr. E. T. Dickinson, Wilson.

"Manners in the Sickroom," Dr. C. S. Jordan, Asheville.

Title not announced, Dr. I. W. Faison, Charlotte.

"The Use and Abuse of Drugs in the Treatment of Tuberculosis," Dr. W. M. Jones, High Point.

Title not announced, Dr. John Roy Williams, Greensboro.

"Puerperal Eclampsia," Dr. E. T. Strickland, Bethania.

Title not announced, Dr. Owen Smith, Asheville.

"The Importance of Early Diagnosis and Treatment of the Mastoid Complication of Middle Ear Disease," Dr. J. M. Lilly, Fayetteville.

"Anæsthetics and Anæsthesia," Dr. C. S. Grayson, High Point.

Title not announced, Dr. James McKee, Raleigh.

"The Relation of the Obstetrician and the General Practitioner," Dr. A. R. Croom, Maxton.

"The Importance of the Work of the General Practitioner," Dr. L. B. McBrayer, Asheville.

"The Relation of the Oculist and the General Practitioner," Dr. G. S. Tennant, Asheville.

"The Relation of the Laboratory and the General Practitioner," Dr. W. S. Rankin, Wake Forest.

"The Relation of the Surgeon and the General Practitioner," Dr. T. E. W. Brown, Asheville.

"The Relation of the Gynecologist and the General Practitioner," author not announced.

"The Relation of the X-Ray Work and the General Practitioner," Dr. W. D. Witherbee, Charlotte.

"The Relation of the Consultant and the General Practitioner," author not announced.

"The Results of Surgery as Seen by the General Practitioner," Dr. J. Allison Hodges, Richmond, Va.

Title not announced, Dr. Southgate Leigh, Norfolk, Va.

Address, Dr. C. A. L. Reed, Cincinnati, Ohio.

"A Few Suggestions for Those Suffering from Tuberculosis," Mr. Wm. R. Kirk, Hendersonville.

Title not announced, Dr. J. M. T. Finney, Baltimore, Md.

"Hydatidiform Mole," Dr. J. B. Cranmer, Wilmington.

"Conservative Surgery," Dr. Joseph Akerman, Wilmington.

"Management of Labor," Dr. J. W. McGehee, Reidsville.

"The Importance of Regime in the Treatment of Tuberculosis," Dr. I. J. Archer, Black Mountain.

"Early Recognition and Treatment of Toxic Amblyopia as Caused by Abuse of Tobacco and Alcohol," Dr. J. H. Honnett, Wilmington.

"Some Atypical Forms of Malaria," Dr. J. W. P. Smithwick, La Grange.

"Orthopædic Surgery: A Plea for the Crippled and Deformed Children of North Carolina," Dr. J. L. Hanes, Winston.

"Hydrocele," Dr. E. H. Moore, Elm City.

"The General Practitioner as a Surgeon,"

Dr. Edmund Harrison, Greensboro.

"Diagnostic Value of Exploratory Incision, with Cases Cited," Dr. Joshua Tayloe, Washington.

"Pellagra." Dr. Edwin J. Wood, Wilmington.

"To Be, Rather Than Seem," Dr. N. C. Hunter, Rockingham.

"Title not announced, Dr. Albert Anderson, Raleigh.

"Report of a Clinical Case," Dr. Wm. M. Jones, High Point.

"The Application of Dietetics in Acute and Chronic Intestinal Infections," Dr. Fenton B. Turck, Chicago, Ill.

"An Interesting Case of Gangrene." Dr. K. P. B. Bonner.

"Points in Minor Surgery," Dr. W. J. McAnally, High Point.

"Milk Sickness," Dr. J. A. Reagan, Weaverville.

"Early Tuberculosis and Malaria, Their Differentiation," Dr. Paul Ringer, Asheville.

"Ligation of the Femoral Artery, with Results," Dr. J. R. Paddison, Oak Ridge.

"Coxa Vera," Dr. Wm. Moncure, Raleigh.

"Splenectomy, with a Case," Dr. R. L. Payne, Norfolk, Va.

"Hysterectomy with Report of a Case," Dr. R. O. Dees, Greensboro.

"Epidemic or Malignant Cholera as Observed in the Philippine Islands," Dr. C. G. Bryant, Spruce Pine.

"The Things That Kill Women in Childbearing, How and Why," Dr. H. D. Stewart, Monroe.

"Character Sketch of Dr. P. L. Murphy," Dr G. M. Cooper, Clinton.

"Early Demand for Early Surgical Interference in Pernicious Vomiting of Pregnancy," Dr. J. A. Williams, Greensboro.

ANNUAL MEETING OF ASSOCIATION OF SURGEONS OF SOUTHERN RAILWAY.

The thirteenth annual meeting of the Association of Surgeons of the Southern Railway was held in Birmingham, Ala., April 28-30. Dr. H. T. A. Lemon, of Washington, D. C., presided over the sessions.

The occasion was a most successful one in every respect. More than two hundred of the surgeons of the system were present, a large and well selected list of papers were read, and the discussions were characterized by the usual vigor and virility which prevails in this excellent organization.

The President of the Southern Railway, Mr. W. W. Finley, of Washington, D. C., was present and delivered an instructive address before the surgeons. Hon. H. McWhorter, of Atlanta, Ga., of the Southern,s general counsel also delivered an address on certain legal aspects of injuries. The able Chief Surgeon of the System, Dr. W. A. Applegate, of Washington, D. C., under whose guiding hand the surgical staff of the system, as well as the interests of the Railway Surgeons, Association, has been so markedly advanced in recent years was present and active in his efforts to promote the success of the occasion. As the responsible head of the Southern's surgical staff, Dr. Applegate, has been untiring in his work and the manifest fruits are being now realized in a greatly increased efficiency under his direction.

Dr. J. Howell Way, of Waynesville, N. C., President of the Medical Society of the State of North Carolina, read a paper on Tuberculosis that attracted unusual attention and was widely discussed.

The following officers were elected for the ensuing year:

President—Dr. B. G. Copeland, Birmingham, Ala.

First Vice-President—Dr. T. H. Bahnson, Winston-Salem, N. C.

Second Vice-President—Dr. J. H. Matthews, Macon, Ga.

Secretary-Treasurer—Dr. J. U. Ray, Woodstock, Ala.

It was voted to hold the 1909 session in Jacksonville, Fla.

SPECIAL FROM NORTH CAROLINA TO CHICAGO MEETING OF A. M. A.

An enterprising official of the State Medical Society is arranging with the railway authorities to run a special Pullman car from some point in North Carolina, probably Asheville, direct to Chicago for the meeting of the American Medical Association which convenes in the latter city June 2nd, 1908.

The "special" will be one of the best cars in the service, and will leave Asheville during the night of May 30, reaching Chicago early Monday morning. This will give a day in the famous city for sight-seeing before the great national medical meeting begins its sessions. Near the close of the meeting the "special" will be returned to North Carolina, as in going, without change. Dining cars will be attached and every possible effort made to add to the pleasure and comfort of the party of prominent North Carolina doctors who will avail themselves of the extra comforts to be provided under this arrangement for attending the A. M. A. this year.

Gentlemen not having already arranged for should without delay advise with Mr. J. H. Wood, Agent, Asheville, N. C., that proper reservations may be had. We heartily commend the enterprise of our worthy President, Dr. Way, with whom we

are advised the idea originated, and feel sure the "Tar-Heel Special" will carry a lot of jolly good fellows of the North Carolina profession to Chicago.

THE FLORIDA STATE MEDICAL ASSOCIATION.

The 35th annual meeting of the Florida Medical Association convened in Ocala on the morning of the 15th of April, and was in session three days. The Association was called to order at nine o'clock by Dr. W. V. Newsom, chairman of the committee of arrangements. The address of welcome, on behalf of the city, was made by Capt. G. A. Nash. The address of welcome on behalf of the Marion County Medical Society was delivered by Dr. A. L. Izlar. The response to the address of welcome was made by the President of the Association, Dr. W. P. Lawrence. The President then delivered his address. The roll was called and then the report of the different officers, committees and councilors.

Among the papers read before the Society, that deserve special notice, are the following: Dr. P. C. Perry, of Jacksonville, on X-Ray work: Dr. Van Hood on his visit to the Mayo Clinic, Rochester, Minn.; Dr. F. W. Wilcox on Tubercular Arthritis and Osteitis of the Second Cervical Vertebrae; Dr. Raymond C. Turck, of Jacksonville, on The Leucocytes in Appendicitis; Dr. D. Gates, of Manatee, on Larval Tape Worm in Human Flesh.

The social features of the meeting were very attractive. On the afternoon of the 16th an excursion was given to Silver Springs, by the local Society to the visiting physicians. A special train was chartered, which left the depot at two o'clock. On reaching the springs the crowd boarded three boats, those of Capt. W. H. Clark, Capt. P. T. Randall, and the Camp launch. This boat ride was most delightful, especially to the visitors who had never before seen the spring. They, like every one who visits this beautiful stream of water, were simply charmed by its wonderful and weird loveliness. A special train, with the party returned to Ocala about six o'clock.

In the evening, at the Court House, Dr. Hyram Bird, of Jacksonville, gave a splendid talk about Mosquitoes and Parasites, which was interestingly illustrated by stereoptician views.

On the evening of the 18th a reception was given at the Ocala House, complimentary to the visitors, at which the wives of the Ocala physicians were the hostesses. The parlors of the hotel had been attractively decorated for this event.

The following doctors were elected officers for the coming year: Dr. J. F. McKinstry, Jr., of Gainesville, president; Dr. W. H. Powers, of Ocala, second vice-president; Dr. Peek, of Manatee county, third vice-president; Dr. J. D. Fernandez, of Jacksonville, secretary and treasurer; Dr. E. C. Terry, of Jacksonville, librarian; Dr. J. Harris Pierpoint, of Pensacola was elected delegate to the next meeting of the American Medical Association.

Pensacola was selected for holding the next meeting of the Association, on the first Wednesday in April, 1909.

The Florida State Medical Examining Board met at Ocala at the same time the Association convened. The Board is composed of Dr. J. H. Fernandez, of Jacksonville, Dr. Palmer, of Tallahassee, Dr. Harris, of Orlando, Dr. Hodges, of Gainesville, Dr. Blalock, of Madison, and Dr. Fogarty, of Key West.

There were about thirty doctors who took the examination at the Ocala meeting of the Association.

DR. WALTON'S NEW HOSPITAL.

Dr. J. C. Walton, for several years physician at Mecklenburg Lithia Springs, Virginia, has located in Richmond, Va., where he has established a private sanatorium for the treatment of chronic and nervous diseases. He has procured a most excellent and desirable location in the Murphy Hotel Annex on Grace Street, a new, up-to-date, fire-proof structure, which is peculiarly adapted for such an institution as Dr. Walton will manage. The Richter Company has installed a complete outfit for Hydrotherapeutic treatment and an artesian well furnishes water which contains radium and other valuable mineral ingredients. Electrotherapeutics will likewise be a special feature of the work Dr. Walton will do. He has had an entirely new set of apparatus built especially for his hospital consisting of Static machines, X-ray outfit, Electric light baths, &c.

We are proud to claim Dr. Walton as a native North Carolinian who has won an enviable reputation both within his own State and beyond her borders. His long experience in the treatment of chronic affections renders him unusually and particularly well qualified for just the work he has chosen. During the past year he has engaged in special study along these lines in several of the great medical centres of this country, thus perfecting himself in the most approved and up-to-date methods of diagnosis and treatment. As a courteous, open-hearted gentleman, a scientific, painstaking physician, Dr. Walton is widely known. These qualifications, his long and varied experience, his reputation, guarantee a measure of success in this new enterprise

which it is impossible now to foresee. The Journal congratulates him and professes unbounded faith in his undertaking.

TRANSMISSIBILITY OF BOVINE TUBERCULOSIS.

Koch, in his historic address before the British Congress for Tuberculosis in 1901, called the attention of the medical profession throughout the world to the question of the intercommunicability of bovine and human tuberculosis. That there was a distinct difference in the morphology of the tubercle bacillus of bovine and of human origin had been convincingly shown by Theobald Smith, of Boston, in 1898. Koch went further and denied the transmissibility from man to cow and *vice versa*. He was the first to state authoritatively that tuberculous cattle are not a source of infection to human beings. Behring takes the opposite view and claims that all tuberculosis is of bovine origin, the bacilli entering the system during childhood and in most cases remaining latent for years. Such diverse opinions, held by eminent and scientific authorities, have aroused the widest interest and bred countless controversies.

The Royal Commission in England which spent several years in its investigations cast some doubt on the theory of two sharply defined types of the bacillus. De Schweinitz and Salmon, in this country, have never accepted the existence of two distinct types. They believe the differences are due to the host and both have a common origin. On the other hand, the German Commission and most of the French and German bacteriologists believe the existeuce of two types is proved and established. Theobald Smith, Ravenel and the great majority of American pathologists, most of whom have done experimental work to decide this very important point, agree that there are two types of tubercle bacilli, distinct in cultural characteristics, virulence and morphology.

The question of greatest concern to us is whether the bovine bacillus is transmissible to man and, if so, to what extent? Two queries naturally suggest themselves in this connection. Do bovine bacilli occur in milk and, if so, are they pathogenic for children? Delepene found virulent tubercle bacilli in 17.6 per cent. of a series of specimens collected in Manchester. It is generally believed that the udders must be infected before bacilli are found in the milk. Adami, however, found bacilli in 60 per cent. of tuberculous cattle in which there was no lesion of the lacteal tract. Ravenel experimented with five cows with no physical signs of tuberculosis but reacting to tuberculin and later confirmed the diagnosis on autopsy. The milk of these cows was inoculated into guinea pigs, of which number 18.7 per cent. became infected by a single dose of milk from cows having no disease of the udder. Babinovitsch, of Berlin, obtained similar results. If bovine tuberculosis is transmissible to children, it must be through the milk, and if all milk containing tubercle bacilli was capable of producing tuberculosis, very few of us would escape.

The point of entry of the bovine bacillus is through the alimentary tract. Raw, of Liverpool, would divide tuberculosis in children into two groups, the pulmonary form being the result of inhaling tubercle bacilli of the human type, and the abdominal or glandular form being due to the bovine bacillus taken into the system through the digestive system. Some authorities, notably Behring, Vallee and Calmette, deny that infection ever takes place through the lungs. Ravenel believes that tubercle bacilli can pass through the intestinal wall and be carried to distant parts without any involvement of the intestinal mucous membrane. The bacilli enter the thoracic duct and find their way into the lungs and mediastinal glands. There can be little doubt, however, in the mind of an unbiased observer, after a careful study of the literature, that infection takes place both through the air and the food.

Holt found no case of primary intestinal tuberculosis in 119 children dying from tuberculosis. Bovaird found two cases in 125 autopsies; Northrup, three in 125; Hand, ten in 115 autopsies on tuberculous children. In Great Britain the primary involvement of the intestine is much more frequent than in other countries. Shennan, in Edinburgh, found primary intestinal lesions in 28 per cent. of his autopsies and the figures in London and other parts of England range from 18 to 30 per cent. No satisfactory explanation has yet been made to account for this great difference.

Primary intestinal tuberculosis in young children is claimed by many writers to be of bovine origin. Theobald Smith studied five cases of primary intestinal tuberculosis, and only one of the five was proved to be of the bovine type. The Royal British Commission studied sixty cases of human tuberculosis, but in the abstract of their report in the "British Medical Journal" no mention is made of how many of these were primary intestinal. Nevertheless of these sixty cases, only fourteen were of the bovine type. Young children do not expectorate, but swallow all bronchial secretions and crawl around in the dust and dirt, placing every movable article in their mouths so that the chance of infection with the human bacillus is very great. Comby, before the

International Congress of Tuberculosis in 1905, made the emphatic statement that, from his observations, milk played no appreciable part in the spread of tuberculosis in children. Human or family contagion is the greatest danger and one that should not be minimized. Statistics from all sources show that tuberculosis is relatively rare in the first six months of life and that the greatest number of cases occur between the second and sixth year. If tuberculous milk was such a great source of danger, the greater number of cases would appear before the second year.

That tuberculous cattle are a menace to public health and give the disease through their milk in rare instances has been proven. Efforts to stamp out the disease in cattle should be made, but the attention of the public should not be diverted from the great and very real danger of human contagion. Whether this takes place through the respiratory or digestive tract is immaterial.

For the above valuable resume of this important article we are indebted to Dr. H. L. K. Shaw whose article was published in a recent number of the Journal of the American Medical Association.

ANOTHER OPERATION FOR CONGENITAL DISLOCATION OF THE HIP-JOINT.

Various methods of operating for congenital dislocation of the hip have been described, and each, in the hands of certain operators, has its lists of successes. There are things to be said for or against any or all of them. During the past month Dr. Russell A. Hibbs has published the details of a method originated and employed by him with marked success in a number of cases. Dr. Hibbs, by way of explanation, is a Kentuckian who has attained great success in New York, and, as Surgeon-in-Chief to the New York Orthopædic Dispensary and Hospital, has had abundant opportunity to apply his operation and follow out the results thereof. The New York Medical Journal of April 25, 1908, contains an article by Dr. Hibbs in which, by means of illustrations of apparatus and manipulations employed and very concisely expressed descriptions of the various procedures, one is given a very clear understanding of the operation.

By adducting and flexing the thigh on the abdomen, and extending the leg on the thigh it is possible to force the head of the femur downward below and behind the acetabulum. The problem has therefore been to force the head of the femur, when the thigh is extended and brought back to its position parallel to its fellow, to travel upward and forward to the acetabulum. In order to accomplish this two things were absolutely necessary: first, absolute control of the pelvis; second, an immovable pad so shaped and held against the trochanter as to direct the head upward and forward. To accomplish this Dr. Hibbs devised an apparatus of which an incomplete description is herewith given. It consists of a board six feet long, two feet wide, two inches thick, in which two openings are made beneath where the trochanters would lie and through which the trochanteric pad passes. The child is placed on the board with its sacrum resting on the solid board between these two openings. Two pelvic straps which are attached behind the pelvis pass forward just internal to the crest of the ilium, down over the ramus of the pubis and through an opening in the board just in front of the perineum. These straps are drawn taut by means of windlass pulleys on the under surface of the board, and the pelvis thus is held absolutely immovable. The trochanteric pad, which is triangular in shape and five by one and one-half inches in size, passes through the large openings beneath the trochanters, and by means of a worm-screw mechanism can be forced upward against the trochanter. After the child has been placed on this instrument and the pelvis fixed as described the next step is to extend the leg on the thigh while the thigh is held in adduction and flexion on the abdomen. At this point the trochanteric pad is accurately and firmly adjusted against the trochanter. The thigh is then extended and adducted, thus forcing the head of the femur to travel upward and forward into the acetabulum. The sensation when the reduction is accomplished can hardly be mistaken, and the snap can often be heard. The muscles become taut, and the leg flexed.

Reduction having been accomplished in this manner, plaster is then applied with the thigh so flexed and abducted as to put considerable tension on the muscles. The knee is included in the plaster with the leg extended in such degree as will render the ham string muscles tense. The angles of abduction and flexion will vary with the age of the patient, being greater in those with most shortening. After two weeks the plaster is changed, at which time it will be found possible to bring the limb nearer a normal position. Every two weeks the plaster is changed until its removal. The plaster is worn from two to three months. By this method Dr. Hibbs has operated successfully on fourteen children whose ages varied from twenty-one months to eleven years. Its advantages over the method of Lorenz are: that cure may be effected more quickly in all cases and that the upper age limit where perfect results

may be obtained may also be increased.

The originator of this method should receive the encouragement of the whole profession. The New York Academy of Medicine has enthusiastically received the work of Dr. Hibbs. As a Southerner we are proud of him. In fact a great many of the men who have risen to eminence in the great metropolis are Southerners by birth.

DO NOT NEGLECT THE FUNDAMENTALS.

One seldom reads or has opportunity to hear an address so full of good sound thought as that delivered before the Alabama Medical Association by Dr. W. P. McAdory, of Birmingham. As orator for the society he did not fail to present a subject of interest but he succeeded in making his presentation of it most pleasing. The very fact that he had chosen to make a plea that doctors should not neglect their fundamental branches of medicine after leaving the medical school stamps Dr. McAdory's speech as original. For it is not often that much attention is given to this question. Medicine is year by year, day by day, approaching more nearly to an exact science. The young medical graduate of today has been taught, by graded courses, first the normal body structure and its normal functions, then he has been shown the abnormal, pathological, diseased structures and functions. In order that he may grasp the latter he must know the former. He therefore considers disease as a perverted normal. Anatomy is the study of normal structure; physiology is the study of normal function. No one branch in all the realm of medical study has undergone such rapid development as physiology has. A few years ago was considered the poetry of medicine; it is now looked upon as a science—exacting as only a science can exact. Then consisting largely of theories which fit nicely into one another; today it is a mass of facts, and where the fact is not known, theories are formulated which fit all known phenomena, and one by one these theories are giving away as fast as the facts are being worked out. The physiology of today is therefore a more exact science than it was five years ago. Its importance is realized by the medical schools but the practitioner of medicine is too apt to neglect it after he has left school. It is true that the average physician upon leaving college has a fair knowledge of the structure and functions of the human body, but examinations over, this knowledge rapidly leaves him although the chief facts stick in his memory. He has his text books and to these he can refer when necessary. But the text book on physiology of yesterday is out-of-date tomorrow, because of the rapidly increasing knowledge and accumulation of facts. To become familiar with all these advances requires constant study. It is a fact that the great mass of medical men seldom or never think about physiology, much less keep up with its advances. The effect of this is that they go through life treating disease from the standpoint of their college days, if indeed they have any inclination to treat disease from a rational standpoint. All scientific medicine must be based on the advancement of our knowledge of the normal and if this is not known by the physician it is an impossibility for him to keep pace with the times. He finds himself unable, according to his ideas of physiology, to make his modern methods of treatment fit the pathology, and soon his mind becomes confused by the admixture of a conglomerate mass of facts, theories and superstitions. He follows blindly the lead of others, loses his individuality and becomes an empiricist of the worst kind. The man who ceased studying his physiology ten years ago, if he should presume to examine a recent text book, would find himself in strange fields. And studying his text books on the practice of medicine he discovers that he either soon becomes lost or must follow the author blindly, make things fit unless he go back and familiarize himself with the accepted idea of the normal. Doctors go away to attend postgraduate courses. In many cases they are like first year medical students in these clinics. More good would often be accomplished and more benefit derived for his patients if the clinic-seeker attended an undergraduate course on elementary branches thus making himself better able to appreciate the postgraduate work.

Most men when they graduate intend to become practitioners of scientific medicine; but articles and testimonials from doctors in any of the medical journals of the country will show that blind empiricism and superstition exist everywhere. It is not possible for a man to practice rational medicine without keeping up in the fundamental branches and the converse of this statement is equally true. To him who keeps abreast of the times in these things with each advance he can see more and more clearly the relation between cause and effect, until finally he becomes imbued with the idea that there can be no cause without its effect, and when he sees the effect and does not know the cause, he seeks earnestly to find it.

The effect upon medical science, if the practitioner always kept up with modern advances, would be incalculable. All doctors cannot be great discoverers or investigators. The laboratory man is doing all

he can, and yet it is the practitioner who sees the patient first, and in the history of medicine it has been the practicing physician who first observed phenomena that started inquiry along proper lines. Harvey, a general practitioner, discovered the circulation of the blood. Beaumont, a doctor in a lonely army post, observing the phenomena of gastric digestion through the accidental fistula in Alexis St. Martin's stomach started the inquiries which have resulted in our knowledge of digestion and assimilation.

The fact should never be lost sight of that there can be no perfect scientific medicine until the function of the normal is known. When ideas are based on theories, these ideas must give way to others, if, when the fact is known, it disproves the theory. During the past few years too little attention has been given to the study of normal conditions, and the profession generally have seemed to be satisfied with building their superstructure upon a foundation of theories, many of which have crumbled and will crumble unless they are based on physiological facts. What has hindered all scientific advance, in all ages, putting every stumbling block in its way from ridicule to crucifixion, is superstition. Not superstition on the part of the people, but on the part of the medical men themselves. The intense desire of the human mind to account for things by means of some vague supernatural cause—living in constant expectation that some miracle will be performed—clips the wings of hope and chills the desire to know and understand.

When doctors shall have come to the practicing belief that there can be no cause without its effect, no effect without its cause, a scientific advancement will be seen in medicine such as was given surgery by the discovery of anæsthesia and asepsis. The only way such a millenium can ever be brought about is by the physicians' keeping abreast not only with the advanced but with the elementary branches of his profession.

JOURNALS WANTED.

The Librarian of the University of North Carolina advertises elsewhere in these pages for back numbers of the old *Carolina Medical Journal*. With the exception of the numbers enumerated the University Library possesses a complete file of the Journal named since its very beginning many years ago. It is therefore the largest set of North Carolina Medical literature in existence, a fact which may be of interest to doctors in the State. Those who may have files of this Journal will do well to look them over and if any of these numbers are found communicate with The Library of the University of North Carolina, Chapel Hill, N. C.

GEORGIA MEDICAL ASSOCIATION.

The fifty-ninth annual meeting of the Georgia State Medical Association was held at Fitzgerald April 15-17, Dr. M. A. Clark, of Macon, in the chair. The program was an unusually large and interesting one. A long list of papers were read and discussed in most enthusiastic manner. The attendance was good, large delegations coming from all over the State.

Officers elected for next year were as follows: President, T. D. Coleman, Augusta; first vice-president, W. B. Armstrong, Atlanta; second vice-president, R. Lattimore, Savannah; secretary-treasurer, Claude A. Smith, Atlanta; delegates to American Medical Association, Drs. Owen and Harris.

Macon was selected as the place of meeting for 1909.

TENNESSEE MEDICAL ASSOCIATION.

The Tennessee State Medical Society held its seventy-fifth annual convention in Knoxville, April 14-16. The meeting was called to order by Dr. B. D. Bosworth, of Knoxville, chairman of the committee on arrangements. Mayor John M. Brooks delivered the address of welcome for the city and Dr. H. H. Campbell for the Knox County Medical Society. The response was made by Dr. W. D. Haggard, of Nashville. On Thursday 16th a tuberculosis congress was held.

The following officers were elected: President, B. D. Bosworth, Knoxville; vice-president for East Tennessee, C. T. Carroll, Cleveland; for Middle Tennessee, J. W. Brandon, Clarksville; for West Tennessee, W. T. Blanton, Union City; secretary, George H. Price, Nashville; treasurer, W. C. Bilbro, Murfreesboro. Delegate to American Association of Medicine, meeting in Chicago in June, S. W. Woodyard, Greeneville; alternate, George R. West, Chattanooga. Nashville was chosen as the next meeting place in 1909.

SOUTH CAROLINA MEDICAL ASSOCIATION.

The 60th annual meeting of the South Carolina Medical Association was held in Anderson, S. C., April 14-16, Dr. LeGrand Guerry, of Columbia, presiding. Aside from the reading of papers, of which there was a large number, some most interesting and important matters come up for discussion. Among these were the question of insurance fees, and a resolution calling upon each county society to put a physician into the primary as a candidate for the legislature in order to secure more favorable sanitary and health laws. The latter reso-

lution was defeated, many members expressing great satisfaction with the measures passed this year and outlook for favorable consideration of measures to be proposed for the anti-tuberculosis campaign, pure food and drainage laws as well as requirements for the practice of surgery and medicine.

The South Carolina Medical Association is a most enthusiastic body. Under a new plan of reorganization adopted two years ago it has prospered in every way and with the systematic work of the secretary, Dr. Cheyne, it is rapidly growing and assuming an important place among Southern Medical Societies.

The election of officers resulted as follows: President, S. C. Baker, of Sumter; first vice-president, H. R. Black, of Spartanburg; second vice-president, W. H. Hardin, Jr., of Anderson; third vice-president, A. T. Baird, of Darlington; secretary, Walter Cheyne, of Sumter; treasurer, C. P. Aimar, of Charleston. Councillors: First district, J. T. Taylor, of Colleton; third district, O. B. Mayer, of Newberry; seventh district, F. M. Dwight, of Sumter county. State Board of Examiners: Second district, Harry H. Wyman, of Aiken; fourth district, H. L. Shaw, of Fountain Inn; sixth district, J. L. Napier, of Bennettsville; members at large, Mary L. Baker, of Columbia; Dr. C. F. Wyche, of Prosperity; and Dr. Walter Cheyne, of Sumter, were elected delegates to American Medical Association convention in Chicago. Dr. F. L. Potts, of Spartanburg, Dr. J. T. Taylor, of Adams Run, and Dr. Walter Cheyne, of Sumter, were appointed as committee on scientific work. Dr. W. A. Boyd, of Columbia, Dr. LeGrand Querry, of Columbia, and Dr. R. B. Epting, of Union, were elected members of the public policy and legislative committee. Dr. J. L. Dawson, of Charleston, was appointed chairman of a committee to organize a branch of the National anti-tuberculosis league.

The next annual meeting will be held at Summerville. Attendance was about two hundred.

ALABAMA MEDICAL ASSOCIATION.

The annual meeting at Montgomery of the Alabama State Medical Society, April 21-24, was in every way most enthusiastic and successful. On Tuesday 21st the President, Dr. Samuel Wallace Welch, of Talladega, called the society to order in the Hall of Representatives of the State Capitol. After prayer had been offered by Rev. E. E. Cobbs of St. John's Episcopal church, Dr. H. B. Wilkinson, as president of Montgomery County Society, made the first address of welcome. He was followed by city attorney C. P. McIntyre, who, representing the mayor of Montgomery, gracefully welcomed the doctors to the city, and by Governor C. B. Comer who welcomed the assembly on behalf of the State. The Governor told the society what the recent sessions of the legislature had done for the doctors, calling their attention to the numerous Acts with which they have been favored. He also appointed a board of trustees for the State Tuberculosis Sanitarium, for the establishment and maintenance of which generous provision was made. (This list we give elsewhere). In his address the President, Dr. S. W. Welch, reviewed the health conditions of the State, and also devoted considerable time to the legislative acts which resulted from recommendations coming from the medical profession. He called attention among other things to the law regulating the practice of medicine. It has been amended so as to place the examination of all applicants in the hands of the State Board. The State Board is further empowered to establish reciprocal relations with other State Boards of Examiners, and also to issue certificates without examination to surgeons of both the army and navy and to the marine hospital service.

The report of the Secretary, Treasurer and other officers and committees being completed the Society repaired *en masse* to the Country Club where a delightful luncheon was served. At the evening session a number of interesting papers were read. Wednesday, at both morning and afternoon sessions, most of the time was devoted to the reading and discussion of papers. The Society had the privilege of hearing papers by several eminent visitors: Drs. Chas. H. Mayo, of Rochester, Minn., J. H. Abraham, of New York, J. F. Oechsner, of New Orleans, and E. W. Peterson, of New York. Notable among the papers presented by Alabama doctors were those of Drs. D. F. Talley and L. L. Hill, W. G. Harrison, Kenneth Bradford, of Birmingham; Jno. N. Furniss, of Selma; Rhett Goode and E. D. Bondurant, of Mobile.

At the Wednesday night session, held in the Grand Theatre, the Society heard addresses by Drs. W. M. Wilkinson, of Montgomery, and W. P. McAdory, of Birmingham. The speech by Dr. McAdory is so full of excellent thought that we have elsewhere presented an abstract of it. Dr. Wilkinson who is monitor for the State Society had for the theme of his address the ethics of the profession. He believed that the fundamental principles underlying all moral obligations may be summed up in the Golden Rule. To him the thought was humiliating that physicians and their

families are dependent on the misfortunes of others for their daily bread. And yet individually and as a profession we are striving day by day and year by year to lessen and prevent the ills and injuries of our fellowmen and correspondingly reduce our sources of revenue. He dwelt at length upon the mercenary spirit which has crept into the ranks of the medical profession and suggested some remedies for this tendency.

Thursday morning session was occupied chiefly with the presentation of papers and discussions. Notable among those who read papers were Dr. D. P. Dixon, of Talladega, Drs. Cunningham, D. J. Heacock and A. F. Toole, of Birmingham, Dr. Leach, of Tuscaloosa, and Dr. Seale Harris, of Mobile. In addition to these Dr. Thomas McCrea, of Baltimore, read a paper on "Etiology and Treatment of Acute Rheumatic Fever," and Dr. Chas. W. Stiles, of Washington, D. C., addressed the Society on "Soil Pollution in the South," special attention being given to the Hook Worm, the symptoms caused by this parasite, but especially to the methods of prevention of this disease. In the afternoon the Society was entertained at Electric Park by a barbecue given by the Montgomery County Medical Association.

At 8:00 o'clock in the evening a symposium on Tuberculosis was held at the old First Baptist church which was attended by the majority of the members of the Society, the city council and officials, and a large number of citizens of the town. This was conducted by the American Tuberculosis Exhibition. Addresses were made by Dr. Glenn Andrews and Rabbi B. C. Ehrenreich. Dr. Andrews' statistics showing the ravages of the disease in Alabama, especially drawing attention to the fearful mortality among negroes. He presented very clearly the methods of prevention and treatment, and appealed strongly to the people for their help and co-operation. He believed the negro is the greatest source of danger from tuberculosis, that there is no difference between the two great problems which are facing the people of the South: the negro problem and the fight against the great white plague.

The address of Dr. S. A. Knopf, of New York, on the "Social Aspects of the Tuberculosis Problem" was an important feature of the meeting. Modes of transmission of the disease and modes of infection received special attention. Prominent laymen then were introduced, among them Senator H. F. Reese, of Selma, and Major W. W. Screws. These gentlemen made most interesting talks.

Friday morning voluntary papers were called for. Only Dr. G. W. Shropshire, of Birmingham, responded, reading a paper on the "Treatment of Deep-seated Gonorrheal Infection with Gonococcic Vaccine" which excited very interesting discussion. The Censors' Report was called for and adopted in full after a hot debate had been engaged in because of the unfavorable report of the Board on a resolution offered by Dr. Riggs of the Jefferson County Medical Society. Dr. Riggs sought to procure a change in the constitution which would allow societies having fifteen members or under to obtain representation. In accordance with recommendations made by the Board in the report fifty members of the State Association will be appointed to represent the State at the Tuberculosis Congress at Washington in September. The salary of the State Bacteriologist was raised to $2,000, that of the Registrar of vital and mortuary statistics to $1,800, and of the Senior Censor of the Board of Censors to $4,200.

Dr. B. L. Wyman, of Birmingham, member of the Jefferson County Medical Society, was chosen President for the ensuing year, and the Secretary, Dr. J. N. Baker, and Treasurer, Dr. Henry G. Perry, were chosen to fill their positions for the ensuing five years by acclamation.

Drs. Glenn Andrews and Gay were elected to the Board of Censors.

Dr. Partloe and Dr. Stuart were elected orator and alternate orator respectively. The Councillors elected were Dr. J. B. Letcher, Dr. M. L. Mallory, Dr. J. P. Stuart, Dr. W. McElreth and Dr. W. A. Burns.

Dr. Gay, Dr. Morris and Dr. Davis were appointed as a committee to escort the new President to the chair. The retiring President, Dr. Samuel Wallace Welch, of Talladega, in a short but graceful speech, congratulated Dr. Wyman upon his election to the Presidential chair, and wished him enjoyment of the office.

Dr. Wyman replying said: "In accepting the chair, I wish to thank you for the honor you have done me. In electing me President of such an Association, recognized as the best State Medical Association in the country, you indeed do me an honor. I sincerely thank you."

The other officers elected were escorted to the rostrum and installed in a body.

Upon invitation, the Association decided that Birmingham should be the next place of meeting. The invitation was extended by Dr. McAdory, of the Jefferson County Medical Association, in a neat speech. The convention without any other nomination, accepted the invitation.

President Wyman then declared the con-

vention of the State Medical Association to be adjourned sine die.

NORTH CAROLINA MEDICAL COLLEGE CLOSES.

The first session of the North Carolina Medical College, since its removal from Davidson to Charlotte, come to an end May 11th, 1908. The commencement exercises were held on the evening of the above date at the Academy of Music in the city of Charlotte. The house was filled with the friends of the graduates, students and citizens of the town. The occasion was most enjoyable in every sense of the word and the addresses were of the very highest order. As has been the custom for several years past the graduating exercises of the Presbyterian Hospital Training School for Nurses were held in conjunction with those of the Medical College.

The exercises were opened by invocation of the Divine Blessing by Rev. W. M. Kincaid, D. D., pastor of the First Presbyterian church. Following him was the address to the Nurses by the Rev. C. E. Raynal. His talk was full of helpful advice to the nurse, advice which she can scarcely fail to carry with her as she goes out to minister to the sick and suffering.

Dr. J. R. Irwin, President of the Training School, then conferred upon each of the young ladies the Diploma, and Miss M. J. Lebby, Superintendent of the Training School, presented each with the pin of the school.

It is always fitting that the ladies precede in any ceremony. And so after each young woman had been made a full fledged trained nurse, a most delightful address was delivered to the Medical Graduates by Dr. C. A. Julian, of Thomasville, N. C., who is a learned and polished gentleman and a successful and thoroughly scientific physician, whose reputation is by no means confined to the limits of his own State and whose high professional attainments are well recognized by his colleagues throughout the entire State. His address was impressive and most instructive, indeed it gave evidence of a broad and comprehensive intellect and those who were privileged to hear it could not fail to feel its depth and helpfulness.

After his address the names of the graduates were announced and Diplomas presented to them by Dr. J. P. Munroe, the President of the College.

The exercises over the new doctors and visitors were entertained informally by the Faculty at the Colonial Club, where cigars, refreshments and good stories were handed round unstintedly.

The names of the young ladies who received diplomas are:

Misses Ada Pauline Herron, Charlotte, N. C.; Nellie Lancaster Jones, Guilford, N. C.; Minerva Ruffin Utley, Fayetteville, N. C.

The following are those who received the degree of M. D.:

John Thomas Buff, Casar, N. C.; Clinton Lee Hyatt, Lumberton, N. C.; Henry Embra McMurray, Sharon, N. C.; Franklin Lowe Mock, Enterprise, N. C.; Harry Adams Wakefield, Charlotte, N. C.; Walter Pleasant Wilson, Kingston, N. C.

This marks the closing of a most successful year with the North Carolina Medical College.

THINGS OUGHT NOT SO TO BE.

It is a matter of common observation that the Health Boards of most towns and cities have but little jurisdiction. They are supposed to look after the health of the community, the hygienic and general sanitary condition of the place, and yet they are given few powers and less financial help. Things rock along fairly well until some great epidemic outbreak shocks the citizens into action and for a time the authorities throw a spasm and everything is done that can be done—oftentimes too late. The Boards of Health can meet and pass resolutions but have no power to enforce them. *Apropos* of these remarks are the words of Dr. J. S. Dye, of Chattanooga, Tenn., in an address on the subject of Tuberculosis. In the course of his talk he used these words:

"Tuberculosis kills one in seven of the population of this country. It is communicable, preventable and curable, yet Chattanooga does little or nothing to prevent it. The city spent $18,000 to stamp out yellow fever, the smallpox situation causes an expenditure of $1,000 a day, and yet tuberculosis kills more of the people than yellow fever, smallpox and typhoid fever combined."

And doubtless that is the common experience in the vast majority of our towns and cities. People have somehow grown used to the presence of tuberculosis. It is so slow, so insidious, so quiet in its stealthy tread, but withal so terrible, so inexorable, claiming unfailingly its toll of one-seventh of the human beings of the earth, that it is difficult to induce people to take an interest, and in cases where the Health Board would attempt to do things they are made subservient to other Boards whose time is so much taken up with questions supposedly of vastly greater importance that they can see but little importance in using municipal funds for the purpose of carrying out sanitary measures. The terrible cry in too

many of our towns is lack of money with which to prosecute the work of municipal improvement, with all that may mean, and it usually does mean that nothing is provided for the sanitary department. Yet the question of the value of human lives does not enter.

However, with reference particularly to Tuberculosis a great awakening is taking place all over the country. In our own State several towns are seeing active campaigns instituted and in many of the Southern States the influence of this work is being felt. Tuberculosis exhibits, public addresses, mass meetings are accomplishing wonders toward arousing the public interest. In the press of the country, too, lay as well as scientific, articles intended especially for the people are seen. All these things mean education for the laity and once the people themselves have become aroused we may expect results.

DELEGATES TO A. M. A. FROM NORTH CAROLINA.

It appearing that some of the delegates and alternates elected at the Morehead meeting of the North Carolina State Society are ineligible to serve as Members of the House of Delegates of the A. M. A. not having been members of the A. M. A. for two years as peescribed in the (constitution of that body) the President of the State Society has appointed the following to fill vacancies:

Delegates—Dr. H. T. Bahnson, Winston-Salem; Dr. Albert Anderson, Raleigh.

Alternates—Dr. H. H. Briggs, Asheville; Dr. Frank H. Russell, Wilmington.

These gentlemen with Dr. J. F. Highsmith, Fayetteville, (delegate) and Dr. E. Reid Russell, (alternate) of Charlotte, N. C., will compose the representation of North Carolina at the coming meeting in Chicago.

Editorial News Items.

The smallpox epidemic which had reached rather threatening proportions in Chattanooga, Tenn., has aroused the municipal authorities to adopt active measures toward preventing its further spread. Compulsory vaccination is being practiced and all inhabitants are being vaccinated as rapidly as possible. It is said that 2,000 persons received the virus in a single day.

Dr. A. P. Noyes, formerly of Chattanooga, Tenn., has moved to Newton, N. J., where he will engage in the practice of medicine.

The splendid new hospital at Anderson, S. C., was formally opened April 14. The institution was erected as a result of the efforts of the ladies of the town who raised the sum of $25,000. It contains accommodation for twenty-five patients. Miss Mary E. Stelling, of Columbia, is superintendent and Miss Jean L. Kay, of Columbia, is head nurse. A training school will be established in conjunction with the hospital in which eight ladies will be selected for two year courses. A medical board, consisting of physicians of the county, will be at the head of the institution. This board has appointed a medical staff of six physicians to serve three and six months, to be directly in charge of the operation of the hospital. Dr. LeGrand Guerry of Columbia and Dr. Chas. M. Reese of Charleston, have been selected as consulting surgeons.

An active campaign against tuberculosis is being inaugurated in Nashville, Tenn. A tuberculosis exhibit at the Watkin's institute has a record of 20,000 visitors. Through the co-operation of the State Board of Health, correspondence, printed matter and newspapers, educational articles are being sent throughout the State. The same institution is starting a campaigd in Alabama. Throughout the two states of Tennessee and Alabama meetings are being held, committees are getting together, the newspaper forces are rendering efficient co-operation and altogether there is a mighty stir between the mountains of Tennessee and the gulf below Mobile. "Down with tuberculosis" is the battle cry in these campaigns.

The Corbett Sanitorium for the treatment of nervous and mental diseases and drug addictions, at Greenville, S. C., has just been completed at a cost of $40,000. It is one of the best equipped institutions in the State. The officers are: President, Dr. Davis Furman; vice-president and medical superintendent, Dr. D. G. Corbett; secretary and treasurer and assistant medical superintendent, Dr. J. R. Ware. The directors are the above named officers and Mr. W. L. Gassaway and Dr. J. W. Jervey. Drs. Davis Furman and J. W. Jervey are consulting physicians. All modern appliances, such as electro and hydro-therapeutic apparatus, vibratory machines, have been installed. The building is up-to-date and complete in every particular, having accommodation for 25 patients. Steam heat, electric lights, bath with every room, telephone connection and facilities for amusements of inmates render it in every way a most desirable place.

On April 15, at Asheville, N. C., Dr. C.

O. Swinney, formerly a physician in New York, shot his daughter inflicting a dangerous wound, and then committed suicide. It is said that his mind had been affected for some time.

At a recent meeting of the Directors of the State Hospital at Morganton, the plans for a tubercular ward for female patients were examined and approved. This ward is to consist of a wooden building of one story, 22x47 feet, to be erected at the end of the south wing of the main building. It is to accommodate twenty-five female patients and is not to exceed $2,500 in cost. Work will begin on it at a very early date.

The nurses' building authorized last week by the State Hospital Commission is to be erected on the front grounds, to be of brick, two stories, and to accommodate seventy-five nurses, thus relieving the female department of the Hospital by so much and giving room to as many patients as there will be nurses who will vacate. The cost of the building will be $20,675.

The report of the superintendent, Dr. John McCampbell, showed that at the beginning of the present quarter there were present 1,128 patients; that the demand for room for both men and women patients persists; that the health ot the inmates of the house is good.

It is a matter of interest to learn that of the four patients who recently escaped and all of whom were promptly returned, two have acknowledged that they were glad to get back and it is believed that the other two were also.

The address of American Medicine has been changed from 130 So. 15th Street, Philadelphia, Pa., to 84 William Street, New York City.

We are pleased to note the honor conferred upon our colleague, Dr. A. J. Crowell, of Charlotte, N. C., in his election to the vice-presidency of the General Alumni Association of Maryland.

Dr. and Mrs. T. H. Strohecker celebrated their twenty-fifth marriage anniversary at their home, 2478 Ontario Road, N. W., Washington, D. C., Friday evening, April 17th. The Journal offers its kindliest felicitations.

Greensboro, N. C., is to have still another modern, up-to-date Sanitorium. Dr. B. B. Williams and Mr. John R. Robinson have opened for the treatment of drug addictions and nervous diseases an institution which will be conducted on strictiy ethical lines. Mr. Robinson is manager, and Dr. Williams, physician. The latter, because of his twelve years experience ln this work, is especially well qualified to treat these cases.

The Hospital Ship Relief, in command of Surgeon C. F. Stokes, arrived at San Francisco, April 7, with 150 sick from the battleship fleet which has just completed the greatest naval voyage of history. The patients were discharged at Mare Island and the ship then rejoined the fleet. So much has been said by the press of the whole country about the President's placing a surgeon in command of a ship that comment is superfluous. It seems, however, that this venture has proved highly successful in every way and the medical profession of the whole country should recognize it as a step toward the establishing of better conditions for the medical side of the army and navy.

Dr. E. O. Lockett, of Winston-Salem, has been appointed Coroner of Forsyth County by the Board of County Commissioners.

The people of the town and county of Durham are most enthusiastically entering into the Tuberculosis Campaign which has been inaugurated there. A dispensary is to be established and a nurse employed to handle tuberculosis patients. The city has contributed a fund of fifty dollars per month for its maintainance and an effort is being made with every prospect of success to induce the county commissioners to contribute a similar amount. A league is being organized the members of which will pay an annual fee of $1.00, thus adding considerably to the fund to help on the work and also putting an army of people to work who will watch and report to the proper authorities.

The new Southern Medical Journal will make its first appearance in June, 1908. It will be published in Nashville, Tenn., Dr. J. A. Witherspoon being editor-in-chief. According to an accouncement sent out by the Snell Brothers Company, the publishers. each number of the Journal will contain.

1. Original articles written and selected in such a way as to review all branches of medicine once a year.
2. An extensive Department of Abstracts, including important foreign articles.
3. Clinical Notes.
4. Report of Cases.
5. Southern Medical News, History, and the Biography of Southern men.

One of the best known institutions in this section is the Broadoaks Sanatorium, at Morganton, N. C., Drs. Isaac M. Taylor and Louis G. Beall, physicians. Only recently a new wing has been completed and its opening in April enlarges their already superior facilities for the treatment and care of nervous and mental diseases, inebrity and drug habits.

At the annual meeting of the State Medical Society, at Winston-Salem, there will be a symposium on Pellagra. Dr. E. J. Wood, chairman of the committee on scientific work, announces that any one having a paper on the subject will be heard with pleasure. It is hoped to have men from all over the country wherever the disease has appeared and all who are interested are begged to be present and take part in the discussion.

Dr. Robert Koch, of Berlin, the famous German bacteriologist, has been in America for several weeks during the latter part of April. He is on his way to Japan and is accompanied by his wife. Considerable attention has been shown him by the profession in the various cities he has visited despite the expressions made by him that he desired no public attention while in America.

Dr. W. M. Lester, of Columbia, S. C., has been elected to the executive committee of the South Carolina Board of Health to fill the vacancy caused by the appointment of Dr. C. F. Williams as State Health Officer.

The recent General Assembly of South Carolina passed an Act providing for the appointment of a State Health Officer to be chosen by the State Board of Health. As a result of this new law the Board, at its meeting at Anderson, S. C., elected Dr. C. F. Williams, of Columbia, to this important office. According to the legislative provision the act carries with it a salary of $2,500. Dr. Williams has been secretary of the Board of Health for some time.

Dr. J. C. Brooks, who for the past year has been interne at Erlanger Hospital, Chattanooga, Tenn., has been appointed interne at the City Hospital, Blackwell's Island, New York.

Funds are being raised by the Jefferson County (Ala.) Medical Society to have the tuberculosis exhibition, which is being made throughout the country by the national organization, stop in Birmingham for one or two weeks. This exhibit seems to be a most excellent educational institution and must do a great deal of good.

A company has been formed within the last few weeks in Atlanta, Ga., under the title "Southern Sanitarium Company" with a capital stock of $10,000 and with the privilege of increasing this to $50,000 at any time. The organizers are Drs. George T. Brown, Louis Roughlin and Charles Brown. A charter has been applied for and within a short time a sanitarium will be erected for the treatment of throat and lung troubles.

The Sixth District Medical Society held its second regular meeting in Durham, N. C., April 23. In addition to the regular routine business, addresses and reading of papers, the Society enjoyed a dinner of barbecue, brunswick stew, and other good things. About forty members were present. Dr. A. W. Knox, of Raleigh, is president. The next meeting will be held in Greensboro.

The graduating exercises of the Atlanta Medical College were held April 22, 1908, at the Grand Opera House. The annual address was delivered by Dr. John C. Olmstead, after which Dr: George M. Noble, the Dean of the school, conferred the degree of M. D. upon the following men: D. H. Adams, A. G. Applewhite, W. A. Aderhold, C. D. Bannister, J. H. Barkwell, P. J. Brown, A. C. Burns, O. B. Bush, H. O. Byrd, B. S. Bomar, J. C. Bramlett, S. E. Clinard, Y. R. Coleman, D. R. Cornelius, W. J. Creel, W. M. Ethridge, O. O. Fanning, O. C. Grunitz, J. K. Hall, C. A. Hearn, F. B. Hill, N. B. Hutchinson, W. O. Howard. W. H. Houston, W. C. Hays, J. W. Jordan, W. A. N. Jones, J. O. Kelly, W. H. Lewis, A. Lazenby, M. Medlin, J. E. Morrison, G. E. Neal, C. S. New, A. E. Orton, E. L. Saliba, H. C. Stovall, W. C. Tipton, T. G. Turk, T. L. Vineyard, R. A. Verdier, H. G. Wallis, B. H. H. Ward, G. L. Webb, C. W. White, L. W. Wiggins, I. Willis.

Governor Comer of Alabama has appointed the Board of Trustees for the State Sanatorium for Tuberculosis authorized by the Legislature of that State at its last meeting, and for which a special appropriation of $40,000 and $10,000 annually for maintainance was made. The names of those composing the Board are as follows: Dr. Glenn Andrews, of Montgomery; Dr. B. L. Wyman, of Birmingham; Dr. George T. McWhorter, of Riverton; Mr. D. H. Marbury, of Birmingham, and Hon. H. F.

Reese, of Selma.

Dr. J. C. Montgomery. of Charlotte, spent several weeks during April attending the clinics of northern cities.

Dr. Wm. A. Graham, of Charlotte, has been taking a vacation during the past month. Most of his time was spent in New York.

Dr. Julius H. Taylor has resigned from the Columbia (S. C.) City School Commission. This was necessary because Dr. Taylor is now a member of the Board of Regents of the State Hospital for the Insane.

Dr. J. A. Hayne, of Greenville, S. C., has gone to Panama, where he will be employed as a surgeon in the United States hospital service.

Dr. E. J. Wannamaker, who has been physician to Columbia College (S. C.) for seven years, has been compelled by bad health to resign his position. It is said there has not been a case of serious illness in the college in the seven years.

Dr. Manney M. Rice has been elected City Physician of Columbia, S. C., to succeed Dr. C. Fred Williams.

The South Carolina Medical Association finds itself in a rather peculiar predicament, according to a letter from Dr. S. C. Baker, the president. Dr. W. M. Lester, of Columbia, was up to a few weeks ago a member of the State Board of Examiners. His term expired and he did not offer for re-election, but was chosen as a member of the State Board of Health. This creates a vacancy, which was not filled, and as the annual examinations are only a few weeks off it will be necessary to re-divide the entire work among the seven instead of eight members as formerly.

After the devastation by the terrible tornado in Mississippi and other States, President Roosevelt ordered three Marine Hospital Service Surgeons from New Orleans and Cincinnati to report for duty among the sufferers and requested Governor Noel, of Mississippi, to designate where their services are needed. The President also offered to allow the War Department to furnish ten medical officers and a hospital corps of thirty-six, to act as nurses, this number to be supplemented by one hundred nurses and a complete field hospital.

Bubonic Plague Raging.

A disease supposed to be bubonic plague is reported to be raging at La Guaira, according to a dispatch received at the state department from American Consul Moffat, at that place. The plague on the west coast of South America is serious. In Ecuador since the plague broke out the west coast five years ago the spring months have always shown the greatest number of fatal cases and this is the case now.

In Ecaudor the situation is grave. The plague was kept out of Guayaquil for five years, but since it appeared in February its ravages have been great.

Mississippi State Pharmacy Board.

Governor Noel, of Mississippi, has appointed the following members to constitute the new State Board of Pharmaceutical Examiners: H. B. Welborn, Columbia; J. R. Bryan, Amory; O. Easterling, Scooba; J. B. Small, Winona; L. H. Wilkinson, Jr., Indianola. None of the members of the former Board were retained.

Institute for Tropical Medicine in Australia.

An institute for tropical medicine is to be established at Townsville, in Northern Queensland, Australia. The general management will be undertaken by the three Australian Universities having medical schools—Sydney, Melbourne and Adelaide. The federal government of Australia has agreed to subsidize the work at the rate of 250; and these sums will be increased by private subscriptions. The managers of the Townsville Hospital will set aside a building for a laboratory, free of charge.

The Chaille Memorial and Jubilee.

For several months past a committee has been working most assiduously toward the establishment of a fitting memorial to the illustrious Dr. Stanford E. Chaille, for so many years Professor in and Dean of the medical faculty of Tulane Medical School. On May 19th, 1908, Dr. Chaille will retire from the medical department and on this occasion a jubilee will be held to celebrate the fiftieth anniversary of his teaching service. A memorial fund is being started which will be employed to established a Chair of Physiology or a Chair of Hygeine, to be named after Dr. Chaille.

The alumni are being asked to raise a subscription of $15,000 to $20,000 to which will be added from another source a like amount. Dr. Isadore Dyer, of New Orleans, La., is secretary and treasurer of the committee. Committees have been selected from among the alumni of the various States to carry on the work.

Few men serve so long as has Dr. Chaille.

and it is only fitting and right that he should himself see some recognition of the work he has done.

Kirkwood Sanatorium.

There is no more delightful place in Western North Carolina than Hendersonville. No more suitable place could be found anywhere for the establishment of a Sanatorium for diseases of the lung and throat. Kirkwood Sanatorium, located just outside the corporate limits of Hendersonville at an elevation of 2,500 feet above the sea, is an ideal place for those seeking treatment for tuberculosis. The institution is entirely new with rooms for twenty-three patients, fitted with every device which insures comfort to patients. No more beautiful scenery can be found anywhere. The latest and most approved methods of treatment supplement the benefits to be derived from hygiene, diet and open air life. Dr. Wm. Redin Kirk, President and Medical Director, has had a long experience in the treatment of these diseases.

Nurses Graduate.

The graduating exercises of the Columbia (S. C.) Hospital School for Nurses was held April 23, in the chapel of the First Presbyterian church. Six nurse: Misses Boland, Mobley, Ross, Muller, Timmons and Trenholm, were graduated. Dr. W. M. Lester presided and made a short address to the graduates, Rev. B. W. Fleming delivering the opening prayer. There was also a short talk by Col. W. W. Lumpkin, Dr. L. K. Philpot presented the diplomas and Dr. F. A. Coward the pins, which are always worn by graduates of this school. This hospital school has always been very successful and its alumni show its worth and prestige.

Presbyterian Hospital.

Vigorous efforts toward building a new Presbyterian Hospital in Charlotte are being made by those who have the work in charge. The committee has decided to lay the matter before the various Presbyterian congregations and one Sunday has been set aside on which this may be done. In each church contributions will be called for.

Railway Surgeons Organize.

The surgeons of the Atlanta, Birmingham and Atlantic railroad met in Fitzgerald, April 15, during the meeting of the meeting of the Georgia State Association, and organized by electing W. S. Elkin, of Atlanta. president; G. W. Blanton, of Brunswick, vice-president; W. S. Goldsmith, Atlanta, secretary. Their first regular meeting will be held at Brunswick the fourth Wednesday in May.

State Examining Board for Nurses.

The following letter sent out by the secretary of the Board of Examiners of Trained Nurses for North Carolina will be of interest to many:

Watts Hospital.

Durham, N. C., April 17, 1908.

The Board of Examiners of Trained Nurses of North Carolina will hold its fifth annual meeting in Durham on June 16th and 17th, for the purpose of examining all applicants for license as registered nurse.

Examinations will be held in the Durham High School Building, beginning at 9 a.m. of the 16th.

The State Nurses' Association will be held in Durham June 18th and 19th.

Homes will be provided for those nurses who will send thei- names to the secretary.

MARY L. WYCHE,
Sec.-Treas. Board of Examiners.

Pan-American Medical Congress.

The Pan-American Medical Congress will hold its fifth meeting, August 5-10, 1908, in Gautemala, Central America. The government and the people of the Republic of Ga temala as well as the National Committee of the Fifth Pan-American Medical Congress are actively endeavoring to do all in their power, in a sure and efficient way, to make this meeting a great success.

Although far removed from many parts of the United States, it is said that Gautemala is not an undesirable place to visit, even during August. Situated on a high plateau, it is comparatively cool and there is but little rain during the mouth The trip down from New Orleans or from New York by steamer to Porto Barrios is an agreeable one. The trip to the Congress and back will be in the hands of the chairman of the transportation committee. Excursions can also be made in connection with this Congress to Mexico or the various West Indian Islands. These excursions will be in the hands of any one who chooses to organize one. There will be no charge for transportation in the Republic of Gautemala.

Medical College Graduates.

At the nineteenth annual commencement of Chattanooga Medical College, held at the Opera House in Chattanooga, Monday, April 26, twenty-five young men were graduated. Their names are as follows: J. W. Bailey, Texas; W. E. Baker, North Carolina; I. Barnes, Tennessee; J. C. Brooks, North Carolina; M. M. D. Burchfield, Alabama; B. M. Clayton, Alabama; T. D. Cloyd, Tennessee; C. A. E. Costello, Tennessee; R. N. Graham, Virginia; C. F. Hickman, Virginia; G. E. Horton, Michigan; E. L. Jenkins, Tennessee; M. P.

Jurney,. Mississippi, A. C. Pennington, Mississippi; P. P. Pillans, Florida; W. S. Pyatt, North Carolina; C. J. B. Saxton, Pennsylvania; R. M. Richardson, Tennessee; W. B. Sentell, Alabama; J. B. Shoun, Tennessee; W. R. Snow, Alabama; M. E. Sherer, Alabama; A. M. Stonesifer, Georgia; K. A. G. Sunstrom, Finland; W. J. Withers, West Virginia.

Nurses Graduate.

The graduating exercises of the St. Peters' Hospital Training School (Charlotte, N. C.) were held in the Colonial Club rooms on the evening of April 23, 1908. Five young ladies received diplomas and pins as follows: Misses Carrie L. Bacon, Florence T. Bradford, Della A. Cook, Bessie C. Lowery, Minnie L. Rice.

Tenth District Medical Society of North Carolina.

The last meeting of the Tenth District Medical Society the following officers were elected: President, Dr. Wm. Redin Kirk, Hendersonville; Vice-President, Dr. Chas. Jordan, Asheville; Secretary, Dr. T. E. W. Brown, Asheville. The next place of meeting is to be Waynesville, N. C.

Negligent Doctors to Be Prosecuted.

Prosecutions are to be filed against doctors in a number of counties in the State of Texas for failure to comply with the provisions of the Vital Statistics law. Dr. Brumby has been exhausting all the means within his power to get physicians to comply with the act without resorting to legal proceedings. He has received advice from a number of county attorneys advising him that suits will be instituted. In one county fourteen suits have already been filed.

A New Mexico Sanatorium.

Albuquerque, N. M., has been chosen as a site for the great hospital for the treatment of consumption, to be built by the general organization of the Presbyterian Church of the United States at a cost of $1,000,000. This is the third similar sanatorium to be built in this country.

Dr. Cooper Holtzclaw, Chattanooga, Tenn., was recently operated on for appendicitis by the Mayo's at their hospital in Rochester, Minn.

Authentic report of a genuine case of yellow fever in Santiago Province, Cuba, has been sent out from Havana. The victim is a Spanish immigrant who was stricken with the disease in the Daiquiri hills, about fifteen miles from the city of Santiago.

Commencement University of Georgia Medical Department.

The commencement exercises of the Medical Department of the University of Georgia were held May 1st, in the Grand Opera House, Augusta, Ga. Thirty-five young men received diplomas. Their names are given in the following list: W. S. Adams, L. A. Baker, J. A. Brown, G. Burns, H. N. Busey, H. J. Carswell, R. E. Cawley, W. J. Cranston, D. L. Beal, T. L. Howard, Jr., G. L. Johnson, J. A. Johnson, D. C. LaGroe, G. G, Lanford, K. W. Milligan, J. E. Marew, W. A. Oxner, J. W. Polhill, W. T. Price, Jr., W. M. Robinson, L. B. Royal, D. D. Smith, G. B. Smith, W. K. Smith, F. C. Sales, L. Sutton, T. C. Thompson, D. N. Thompson, C. Usher, J. C. Wright.

Medical Department University of Alabama Closes.

The forty-second annual commencement of the Medical Department of the University of Alabama took place on the evening of May 1st, at the Mobile Theatre, Mobile, Alabama. Governor Comer was the orator of the occasion. Diplomas were awarded to and the degree of Doctor of Medicine conferred upon the following:

W. W. Perdue, Moroa, Ala.; E. A. Sellers, Local, Ala.; Wm. T. Stokes, Meridian, Miss.; H. H. Henderson, Butler Springs, Ala.; C. W. Mixon, Bowles, Ala.; W. H. Riser, Milltown, Ala.; J. C. Hope, Sunny South, Ala.; T. F. Adams, Jr., Thomasville, Ala.; J. M. Whitfield, Hartford, Ala.; H. S. Cherry, Dothan, Ala.; C. M. Grass, Widowee, Ala.; J. W. Fleming, Solitpe, Ala.; E. W. Cawthon, Mobile; H. G. Owen, Bessemer, Ala.; J. C. Moore, Hamilton, Ala.; J. J. Pettus, Milltown, Ala.; W. D. Wood, Healing Spring, Ala.; Wm. J. Wrenn, Sumterville, Ala.; H. Watson, Banks, Ala.; W. A. Stacey, Activity, Ala.; J. W. H. Hermann, Autaugaville, Ala.; J. E. Buzbee, Jasper, Ala.; C. A. Jackson, Brightwater, Ala.; B. F. Anderson, Hope Hill, Ala.; Wm. E. Perry, Moro, Ala.; F. J. Lee, Pine Hill, Ala.; D. L. Walker, Meridian, Miss.

Hospital appointments were as follows: W. H. Riser, City Hospital, Mobile; B. F. Adams, Providence Infirmary, Mobile; A. W. Fleming, St. Margaret's Hospital, Montgomery; R. S. Cherry, Southern Infirmary.

W. W. Perdue won the Bush prize, which is given for the highest average in studies. The honor roll consisted of E. W. Cawthon, C. W. Mixon and W. W. Perdue.

After the exercises the graduation class, faculty and their guests attended a banquet given by the alumni of the University of Alabama.

Medical College of South Carolina Closes.

The annual commencement exercises of the Medical College of South Carolina were held in the Academy of Music, Charleston, S. C., on the evening of April 29, 1908. An address was delivered by Dr Edw. F. Parker, Dean of the school, after which the degree of M. D. was conferred by Major Theo. G. Parker, President of the Board of Trustees on seventeen young men. They are as follows;

W. R. Barron, Manning; J. N. Campbell, Columbia; H. S. Feagin, Harper's; W. B. Furman, E. F. Green, Charleston; T. W. Gunter, Jr., New Brooklyn; M. B. Herlong, Mayo, Fla.; A. W. Hudson, Ruffin; E. T. Kelley, Darlington; C. J. Lemmon, Elliott; Geo. F. McInnes, Charleston; M. S. Moore, Sumter; O. W. Nettles, Foreston; R. M. Pollitzer, Charleston; T. H. Pope, Newberry; J. S. Rhame, Jr., Camden; E. J. Rogers, Ninety-Six.

After the exercises were over the annual meeting and banquet of the Alumni Association of the school was held at the Commercial Club. The graduating class was entertained at this banquet.

Marriages.

Dr. E. L. Head, Tallapoosa, Ga., to Miss Mamie Young, of Rome, Ga., Wednesday, April 22, 1908.

Dr. Wm. J. Zalesky, Assistant Surgeon of the United States Navy, to Miss Elizabeth Dismukes, of St. Augustine, Fla., April 27, 1908. At home in New Orleans, La., until the doctor is ordered to sea.

Dr. W. W. Washam, Cornelius, N. C., to Miss Lozetta Miller, of Charlotte, April 23, 1908. At home Cornelius, N. C.

Dr. Oscar Clarence McCarn, Blossburg, Ala., to Miss Margaret Almeda Swann, of Statesville, N. C., May 6, 1908.

Dr. James Mendenhall Dunlap, Wadesboro, N. C., to Miss Lilly Reese Doyle, of Atlanta, Ga., April 29, 1908.

Dr. Lorenzo Dow McPhal, Rockingham, N. C., to Miss Grace Graham Wilson, of Greenville, S. C., May 6.

Dr. J. Melvin Newbern, Jarvisburg, N. C., to Miss Lillian Mendora Burke, of Bealseton, Va., January 30.

Dr. A. C. Taylor, Columbia, S. C., to Miss Minnie Belk, of Kershaw, S. C., April 18.

Dr. J. N. Baker, Montgomery, Ala., to Miss Margurite Rice, also of Montgomery, at the home of the bride's mother, April 29, 1908.

McPhail--Wilson.

The Journal elsewhere notes the marriage of Dr. L. D. McPhail, of Rockingham, N. C., to Miss Grace Graham Wilson. The wedding took place on the evening of the 6th of May at the home of the bride's parents, Mr. and Mrs. Kerr Wilson, 238 River Street, Greenville, S. C. Dr. McPhail is a prominent and prosperous young physician of Rockingham, a member of the North Carolina State Medical Society and of the Richmond County Society. He graduated in 1900 from the University of Maryland and has succeeded unusually well in building up a splendid practice. He is known as an all-round good fellow, a man of more than ordinary ability, energetic and enthusiastic. While we do not know the lady of his choice, as we do the doctor—about whom it is easy to complimentary things, we are confident that she is as charming a young woman as could be found in the Carolinas where only lovely women dwell. We, therefore, congratulate them both, wishing them too a journey adown the years full of joy and happiness, as free from storms and care and sorrow as they would wish it to be.

After June 1st, they will be at home, Rockingham, N. C.

Deaths.

Dr. Absalom Pettit.

Dr. Absalom Pettit of New Orleans, La., died on March 16 at the age of sixty-eight years. He was born in Warren County, Miss., and received his medical degree from the University of Lousiana in 1870. He was one of the organizers of the Orleans Parish Medical Society, and was well known for his work in the prophylaxis and treatment of yellow fever.

Dr. James F. Atkinson.

Dr. James F. Atkinson, one of Chester county's best-known and most esteemed citizens, died suddenly at his home near Richburg, S. C., April 14. He had been in failing health for some time. He leaves a wife, four sons and two daughters. Dr. Atkinson was in his 73d year. He enlisted in the Sixth Infantry at the outbreak of the war, but later was transferred to the cavalry.

Dr. C. H. Peete.

Dr. C. H. Peete, after an illness of over a year, died April 13. at his home in Macon, Ga. He was a graduate of Van-

derbilt University, class 1892. Dr. Peete was a successful eye, ear, nose and throat specialist.

Dr. Norwood K. Vance.

Dr. N. K. Vance, of Greenville, S. C., committed suicide, April 2, in a room in the Kimball House, Atlanta, Ga.

Dr. William H. Bagwell.

Dr. William H. Bagwell, aged 50 years, died suddenly April 7, at his home in Greenville, N. C., after an illness of only five days. He was a native of Wake county and moved to Pitt in 1883, first locating at Pactolus and moved to Greenville ten years later, where he enjoyed a large practice. He leaves a wife and five children; also several brothers and sisters residing in this and other States.

Dr. J. H. Edwards.

Dr. J. H. Edwards, of Wylam, Ala., died April 16, at the Davis Infirmary in Birmingham. His death was caused by apoplexy, the result of an injury which was brought on by a fall from his horse. Dr. Edwards was city physician of Wylam.

Dr. T. W. Ware.

Dr. Thos. W. Ware, of Redo, S. C., died April 26. The immediate cause of his death was heart failure. He had been in feeble health for some time.

He was a gallant soldier—one of seven brothers who offered themselves to their country. Dr. Ware was the only survivor when the war was over. He was a successful farmer and a fine physician.

Dr. C. W. Corriher.

Dr. C. W. Corriher, of Landis, N. C., died on the 19th of April, of pneumonia. He was 56 years of age. He leaves a widow and two children. Dr. Corriher was one of Rowon county's best-known citizens. He was a pharmacist for a number of years and was identified with numerous enterprises in his own and other communities.

Dr. W. J. Wall.

Dr. W. J. Wall, of Inman, S. C., died on the 23d of April, in Spartanburg Hospital, of appendicitis. Dr. Wall was a well known physician of Spartanburg county, having been a successful teacher and for several years a member of the county board of education, before he began the practice of medicine. Dr. Wall graduated from the medical department of the University of Tennessee in 1901.

Dr. Wallace Rouse.

Dr. Wallace Rouse, lecturer and demonstrator in the Medical College of the Texas University, Galveston, Texas, was instantly killed by lightning on the 21st of April, while at Bettison's Pier, seven miles from the city, on the government jetty. He was 36 years of age.

Dr. H. E. Wilkerson.

Dr. H. E. Wilkerson, of Augusta, Ga., died on April 15, 1908, at 47 years of age. Dr. Wilkerson was a citizen of Augusta for a number of years. He was a member of the Richmond County Medical Society and of the Georgia State Medical Association,

Dr. Claude H. Lewis.

Dr. Claude H. Lewis died April 23, at his home at Farmer, Randolph county, N. C., in his 60th year. He was a very prominent physician and excellent citizen. He was educated at West Point and Trinity College and was a graduate of Jefferson Medical College, class 1878. He was buried by the Masons at the family burial grounds at Farmer.

Dr. Warren Wimberly.

Dr. Warren Wimberly, of Jeffersonville, Ga., died April 17. His death was the result of a terrible struggle in a swollen stream in which both the physician and his horse narrowly escaped drowning. He succeeded in reaching the bank but the exertion so overstrained a weak heart that he expired while being carried to his home.

Dr. George Grimes.

Dr. George Grimes, one of the most prominent physicians of west Georgia, died in his room in Columbus, Ga., April 28. He was a brother of the late Congressman Thomas A. Grimes. He was about 53 years of age. He was not married, and leaves no brothers or sisters.

Dr. T. E. Linn.

Dr. T. E. Linn, one of the most prominent physicians of Asheville, N. C., died May 4, 1908, after a lingering illness. Dr. Linn came to Asheville about fifteen years ago for his health. He was a victim of tuberculosis.

Dr. J. F. Griffin.

Dr. J. F. Griffin, one of the oldest physicians of Shreveport, La., died April 30, '08, aged eighty years. He was born in Louisville, Ky., Nov. 14, 1827. For sixty years he practiced medicine, graduating from the Louisiana State University in 1849. He served through the civil war, enlisting in a local company and was promoted to surgeon. He was well known as a medical writer, and during reconstruction days was editor of the Southern Cross, published in Avoyelles Parish. He was surgeon of the T. P. A. at the time of his death, and for years was President of the Shreveport Medical Society. He recently resigned from the position of chemist of the Board of Health on account of failing health. He was also President of the Shreveport Medical Society.

Abstracts of the Leading articles of the month.

Twelve Cases of Mastitis Treated by Suction Apparatus.—Hartmann (Munch. med. Woch.) details the treatment of twelve cases of mastitis of various degrees of severity by means of Bier's suction apparatus, with excellent results. He states that the bad results reported under such treatment are due to failures in technique. One mistake that is made is the use of too small a bell glass. The glass should be twelve or fifteen centimeters in diameter, and should cover almost the whole breast. A small incision should be made over the abscess if pus has already formed, since suction alone will not cause a collection of pus to be absorbed. If pus has not yet formed the focus may be dissipated. If too small a glass is used a severe pain will be produced and irritation of the focus of infection. The sitting should be about one-half hour in length, and suction should be applied for five minutes at a time, with three- to five-minute pauses between, and reapplications should be made four to five times. Milk should be emptied out of the gland afterward by a small glass. The sound breast should be nursed by the infant.

Another mistake that may be made is leaving off the treatment too soon, when a new focus may be produced, or a return at the old focus takes place. The results of treatment should be relief of pain and fever, and disappearance of fresh foci without incision in three to five days. If pus has formed with incision they should heal in one or two weeks, more quickly than under any other surgical treatment. The cosmetic results are good. The subacute, indurated forms are not suitable for suction treatment, but are better treated by pressure and massage. Old cases which have ruptured spontaneously are longest in healing. Suction permits of a better localization of the point for incision. Abscesses heal rapidly by absorption of the infiltration. Acute processes soon become less marked. Drainage is generally unnecessary, except when the abscess is very deep and narrow. Pressing on the abscess should be avoided as harmful. The pus soon lessens, and the secretion becomes serous. Wounds heal rapidly by granulation.

Injections of Air for the Relief of Pain.—Gubb (British Medical Journal) reports nine cases in which subcutaneous injections of air were given for the purpose of relieving painful manifestations. The method was introduced by Cordier at a time when elongation of nerves by stretching was in vogue for the treatment of neuralgia, especially in sciatica. The injections are supposed to produce elongation of the finer nerve tendrils where they leave the subcutaneous tissue to enter the derma proper.

The method is simple, a sterilized hollow needle being plunged through the skin over the seat of the pain, and, after making sure that a blood-vessel has not been entered, air is pumped in by means of an ordinary rubber bulb. In the air-tube is placed a glass tube filled with sterilized cotton. A rounded swelling forms round the seat of puncture, and when the air reaches a vascular or nervous sheath, it rapidly spreads along it and secondary swellings form at a distance. These secondary ramifications are specially likely to form on the limbs. The skin at first becomes blanched, but later this gives place to a pronounced redness lasting for several hours. It takes several days for the air to be completely absorbed. No pain is experienced, and cutaneous sensibility is at once diminished, the skin becoming numb. After the needle has been withdrawn and the hole closed with collodion, it is indispensable to massage the part. The subcutaneous air must be alternately dispersed and brought together again, especially over the painful spots. The procedure is applicable to the relief of pain due to all forms of neuralgia and neuritis. But the amount of air must be varied according to the anatomical structure of the part.

In the treatment of sciatica, the injections should be made in the lumbar region, on the outer side of the thigh, and on the supero-external part of the leg. The writer has not yet ventured to try this mode of treatment in neuralgia of the face. In all nine of the cases reported, relief was rapid and lasting.

Ankylostomia Anemia in Children.—Cozzoline (La Pediatrica) describes two cases of infection with ankylostoma duodenale in children that were fatal. All the members of the family showed the parasite in the stools. It is a cylindrical worm varying in length from eight to twelve millimeters. The mouth is provided with four hooks, by which it fastens itself to the intestinal walls for the purpose of sucking the blood to feed upon. The number of ova produced is enormous, four million having been counted in a single stool. When passed the ova change to larvæ with an impenetrable covering which protects them for about fifty days. They may be carried to the new host by unclean hands or in infected water. The effect on the patient is to cause a severe anemia, which, according to some, results from the abstraction of blood alone, while according to

orhers the parasite produces excretions that are poisoned to the system. A high grade of anemia is produced, and there are leukocytosis and eosinophilia. The treatment consists of a course of anthelmintics, consisting of felix mas or thymol, which is to be repeated in a few weeks. Even after the parasites are all removed the anemia may still not be recovered from, and may cause death.

Relations of Typhoid and Paratyphoid to the Bile Ducts.—Forster (Muenchener Medizinische Wochenschrift) explains the appearance of sporadic cases of typhoid fever, as well as the endemic and epidemic appearance of the same, by the chronic excretion of typhoid bacilli in the bile of chronic typhoid bacilli carriers. The gallbladder forms the natural place where the bacilli are to be found in these chronic carriers, and the primary indication of treatment is to so treat patients suffering from typhoid fever that no permanent diseases of the gallbladder may be left behind. How this may be accomplished remains for the future to teach us.

The Emptying of the Stomach, the Separation of Solids and Fluids, the Behavior of Fat.—Prym (Munch. Med. Woch.) learned from experiments on small dogs that it makes a considerable difference whether pieces of meat are eaten first and fluid then drunk, or fluids taken first and meat eaten later. When the meat is eaten first it is to be found thirty-five minutes after the meal in a coherent mass surrounded by the fluid, while when the fluid is taken first the meat is found seattered throngh it at the same time after the meal. An hour and a half after the meal the pieces of meat are still together in a mass surrounded by the fluid and the brownish product of the peptically dissolved meat. Fat is scattered throughout in fine particles, which tend to unite and form large drops when the movement of the wall of the stomach is interfered with.

The Necessity of Removing the Appendix During Every Gynecologic Laparaotomy.—Pankow (Muenchn. Med. Woch.) makes a strong appeal for the removal of the vermiform process, whenever the abdomen is opened for a gynecologic operation. Incidentally he attempts to prove that for this reason alone the abdominal route must be given preference over vaginol coenotomy. From statistics, largely supplied by American surgeons, it has been estimated that in about 10 per cent of all women, in whom a laparotomy is performed for some gynecologic disease, the appendix is found in a diseased condition. In carefully examining 147 cases Pankow was able to detect microscopic evidence of an inflammatory process in the appendix in eighty-two instances, and thus he feels justified in concluding that the proportion of concomitant appendicular trouble is much higher and must be placed at about 60 per cent.

Epidemic Pemphigus of the New-Born.

Riviere (Gaz. Hebd. des Sic. Med.) describes a small epidemic of eight cases of pemphigus which occurred in the Maternity Hospital of Pellegrin. The author believes that the infection causing this epidemic entered by way of the umbilicus, and was communicated by means of unsterilized ligatures that were used for the ligation of the umbilical cord. The umbilical wound suppurated in six of the infants that had the pemphigus and four of these infants had catarrhal ophthalmia. There was no effect on the general condition of the children who remained apyretic and the nutrition did not suffer at all. The bullæ never appeared on the palmar or plantar surfaces, but generally in the neighborhood of the umbilicus, the axilla, shoulder, and neck. There were no syphilitic symptoms in any of these children or in the mothers.

Continuous Generalized Spasms and Acute Encephalitis of Infants.

D'Allocco (La Riforma Medica) describes acute encephalitis in infants as a malady that is generally met with in the chronic stage of paralysis owing to the quickness with which the acute symptoms pass and the obscurity of the symptoms. The disease comes on as a general infection, with fever and symptoms of brain irritation. A continuous, uniform, rhythmical clonic spasm comes on. The limbs are flexed and head extended. This condition is soon followed by paralysis without spastic condition. Electric excitability is increased, and there are no trophic disturbances. There is a stimulation of the central convolutions and central lobules of the one or both hemispheres. As long as the stimulation goes on the spasm continues, but when it is over paralysis supervenes. The conditton may be of traumatic origin, or a true infective malady. The single autopsy obtained by the author showed that there was an occlusion of the blood-vessels, for the most part venous, sometimes produced by true embolism and followed by acute inflammation or degeneration. The condition is analogous to anterior poliomyelitis. Most of the cases observed by the author were in rachitic babies and in the winter and spring. In the child, the babe, and the fetus, the causes of encephalitis, are not the same as in the adult. The venous system is more developed than the arterial; thrombosis of

trunks and secondary branchse is frequent and does not destroy life.

The Syndrome Produced by a Lesion of the Optic Thalamus.

Hartenberg (La Presse Med.) presents an excellent description of the symptomatology, anatomy, pathology' and diagnosis followed by a general discussion of the condition produced by a lesion of the optic thalamus, a condition first noticed in 1903, which has since attracted some attention. Briefly, the symptoms presented are: Hemianæsthesia of organic character, slightly marked as regards superficial sensibility, but very pronounced as regards deep sensibility, severe pains in the anæsthetic side of the face, brow, cheek, orbit, limbs, oftener superficial than deep, slight hemiplegia shown by a little facial asymmetry, hypotony and diminution of muscular power, without atrophy or contracture and with reflexes either slighly exaggerated or normal, slight hemiataxia not seriously impeding motor adaptation or locomotion, and choreoathetosic movements. This syndrome may be produced by a lesion of the posterior third of the external nucleus, a portion of the internal nucleus, the median centre and the pulvinar of the optic thalamus, as well as in a small internal capsule. The diagnosis may be made through the presence of a hemiplegia with a maximum of sensory and a minimum of paralytic troubles. The accuracy of this conception of the syndrome produced by a lesion of ihe optic thalamus is not universally accepted.

Pyocyanase as a Prophylactic and Remedial Measure in Certain Infectious Diseases.

Emmerich (Muench. med. Woch.) noticed that the thick bacterial film which forms upon the surface of fluid cultures of bacillus pyocyaneus appears again after shaking the fluid, but if it is thns destroyed every three or four days for a period of three weeks it disappears and the growth of bacteria ceases. In his opinion, this arrest of development is caused by a very active bacteriolytic enzyme, and from his investigations he conclvdes that the latter is produced in the cells of the bacteria as an insoluble zymogen, which enters the fluid as a soluble enzyme on death of the bacteria.

The substance thus produced in cultures of bacillus pyocyaneous, the investigator calls *pyocyanase*. It is obtained in pure concentrated solution by passing a three weeks' old culture of bacillus pyocyaneous through a Berkefeld filter and reducing to one-tenth ts volume in a vacuum; This substance has been shown by the author together with Lowe to destroy bacillus pyocyaneous as well as diphtheria, cholera, typhoid, plague and anthrax bacilli, and the streptococcus, staphylococcus and gonococcus, dissolving and killing large numbers of these organisms in shori time. The bacteria dissolved by pyocyanase are, in the author's opinion, probably characterized by the same chemical composition of the proteid substance of their protoplasm or the same chemical nature of their membrane. Certain pathogenic bacteria—such as the tubercle bacillus—which possess a membrane rich in fat and cellulose, and many saprophytes, such as the hay bacillus, are not dissolved or killed by pyocyanase. The bacilli of infantile grippe and the meningococcus are not destroyed by pyocyanase.

From experimental investigations the author claims the following advantages for the therapeutic use of pyocyanase:

(1) By its use, diphtheria bacilli are killed on the membrane and the mucosa of he throat; (2) pyocyanase inhibits the growth of bacilli which are not killed by its use; (3) it destroys the action of the diphtheria toxin, probably by the production of a chemical body which binds the toxin and renders it harmless; (4) pyocyanase destroys the membrane by means of its trypsin-like, proteolytic enzyme; (5) it has a specific action upon the restitution of the mucosa.

In treating diphtheria he insufflates three or four cc. of pyocyanase into the throat through an atomizer, blowing through the connecting tube. This is done four times at a sitting at intervals of ten minutes, to allow the pyocyanase to act thoroughly. He claims that the diphtheria process is arrested and retrogresses, the promptness depending upon the energy with which the pyocyanase is used. The author says that he has cured 32 cases of diphtheria by its use. It has been used as a therapeutic and prophylactic measure by Escherich, Jehle, Pfaundler and Zucker.

Zucker tested pyocyanase on 35 cases of diphtheria and found that it caused rapid disappearance of fetor, subsidence of fever, and dissolution of the membrane.

Six cases of diphtheria and croup complicated with streptococcus and staphylococcus are described which notwithstanding repeated injections of antitoxin, continued a progressive course, showing merety a transitory improvement after the injections, then a considerable increase in the symptoms. These cases recovered when treated with pyocyanase.

The author thinks pyocyanase is especially valuable in the severe cases of complicated diphtheria which usually terminate in gangrene, lesions of the respiratory tract, or general sepsis.

Diabetes Mellitus.—Bosanquet (Lancet) reports two fatal cases of diabetes mellitus occurring in two brothers. Among the points of interest were the following: 1. The hereditary incidence of the disease was well shown, no less than four members of one family being affected. Alopecia areata also occurred in three of the cases. 2. In one case the onset of the disease was very rapid and accompanied by abdominal pain, suggesting an acute affection of the pancreas. In the other case the onset was insidious. 3. In one case the patient passed into a deep state of coma, and yet recovered for a time, dying comatose eventually, the kidneys showing acute inflammation. The acetonæmia did not depend on any lack of carbohydrate food. 4. In one case the amount of sugar in the urine varied independently of the diet taken, thus bearing out the author's views as to the origin of sugar in diabetes, viz., that some portion of the sugar arises from a breaking down of the cells of the body, in addition to that which may be due to some defect in the process of absorption of sugar from the alimentary canal or of its destruction in the body. 5. Secretion failed to act beneficially in either case. Its employment in diabetes can only be upheld on the principle that the formation of the internal secretion of the pancreas and that of the digestive ferments take place as a single chemical action, the lining substance breaking down simultaneously into both these substances. 6. In both cases the anatomical condition of the pancreas was striking; in each there was marked atrophy of the organ without noteworthy alteration of structure. In both there were plenty of normal looking islands of Langerhans, thus tending to support the view that the typical condition of the pancreas in diabetes is atrophy, affecting the secreting cells as a whole. In both cases there was well marked arteriosclerosis, which is the most constant feature in the pancreas in cases of diabetes.

Acute Tuberculous Fever.—Roberts and Bhandarkar (Brit. Med. Jour.) call attention to the existence of an acute fever, due to the tubercle bacillus, and which is often confounded with typhoid and malarial fever. The fever is of a remittent or intermittent type, lasting from a week to four weeks; the liver is often enlarged, the spleen not so. Vomiting and nausea are marked, but not continuous. The most distinguishing feature is pain and tenderness in the epigastrium, on which stress is laid in diagnosis. Some cases have acute exacerbations of pain, others only tenderness, which, if it is associated with hepatic enlargement, makes the diagnosis from liver abscess very difficult; but the detection of tubercle bacilli in the urine clears up all doubt. The mind is clear, generally remarkably so. The tongue is furred, but not coated as in typhoid fever. This fever is completely recoverable from, but it marks the launching of the patient on a tuberculous career—the beginning of a long period of ill health of an indefinite kind. This general malaise is not continuous. Another set of cases develop obvious tuberculosis—tubercle of the lungs, kidneys, etc. The initial acute tuberculous fever has been by that time completely forgotten. In this fever the abdominal symptoms point to probable invasion through the alimentary canal. It is not to be confounded with tuberculous peritonitis. The mortality is low, and the condition does not drift into acute miliary tuberculosis. The direct evidence is supplied by the detection of the tubercle bacillus in the urine. The technique is that given in the books; attention is called to the importance of a good centrifuge, the washing of the deposit in distilled water once or twice to insure fixation, and the use of egg albumin to facilitate this. The Ziehl carbol fuchsin method of staining was the one used. The writers are convinced that there exists a tuberculous cachexia, not only as the sequela of acute tuberculous fever, but coming on gradually, and manifesting itself by indefinite malaise. Its detection depends on the examination for tubercle bacilli in the urine. This stage is probably the precursor of an evident tuberculous disease, such as affections of the lungs, kidneys, bones, or abdominal organs. This cachexia exists along with a low opsonic index, and it is important to raise this to effect a cure.

The Treatment of Acute Gonorrhoea.—Pardoe (Practitioner) considers two methods, the abortive and the expectant, the choice of treatment depending upon the limitation of the infection to the anterior urethra or its spread along the entire length of the canal. The abortive treatment is effective only in cases which are seen within a day or two after the appearance of symptoms and before the discharge becomes purulent. It consists in cleansing the urethra, determining the extent of infection with the urethroscope (after the application of a local anæsthetic), and then the free application to the urethra of a 2 to 4 per cent. solution of silver nitrate. This may be repeated, if necessary, in forty-eight hours. If the disease has passed the initial stage, urethral irrigation twice daily, for ten days, with a weak solution of potassium permanganate, will often prevent its further progress. In the expectant method of treatment cleanliness of the penis and urethra is

imperative, antiseptic lotions and plain hot water being frequently applied. The diet should be simple, alcohol should be abstained from, and the urine should be made alkaline. When the pain and scalding of micturition are ended the balsams are indicated. Irrigation with permanganate of potash solution should be practiced several times a week.

Menbranous Rhinitis.—Rose (Practitioner) thinks that, notwithstanding the frequent descriptions of this condition, it is frequently overlooked even by specialists in nose and throat disease. A bacteriological examination of a culture from the nasal membrane or the discharge will usually reveal many diphtheria bacilli. It usually occurs in children who may be in fair general condition, running from the nose, slight bleeding, and nasal obstruction being pronounced symptoms. The mucous membrane of the nose is congested and covered with a more or less dense and tough membrane. The pharynx is usually normal in appearance. The disease usually continues four to six weeks. The patient should be isolated as in well pronounced diphtheria, antitoxin should be injected, and the nose irrigated. Removal of the membrane by force does no good, as it will immediately reform. Though this is considered a mild form of diphtheria and should be treated as such, it will not communicate to a susceptible person diphtheria in a severe form, but only a similar rhinitis or a sore throat with a small patch of exudate.

Acute Poliomyelitis.—Pasteur, Foulerton, and MacCormac (Lancet) report that after having identified a micrococcus in the spinal fluid withdrawn during life from a boy with symptoms of acute poliomyelitis, they succeeded in producing an ascending motor paralysis in a rabbit, after a prolonged period of incubation, by inoculating this fluid into the subdural space. On the death of the rabbit a micrococcus could be demonstrated in the cerebrospinal fluid similar to that seen in the fluid from the human case; and by similarly inoculating another rabbit with an emulsion of cerebrospinal substance and fluid from the first experimental animal they again succeeded in producing a motor paralysis again associated with the presence of the micrococcus in the spinal fluid. The evidence is bacteriologically incomplete, however, as it was not possible to cultivate the organism on artificial media. The writers hold that the investigations of Geirsvold and others have established beyond question the existence of a specific infective disease of which acute poliomyelitis is a frequent and prominent, but not essential, feature. This specific disease has apparently no clearly distinctive primary features to enable one to distinguish it by its clinical symptoms from many other febrile conditiogs of probably infective origin. And so while the serious complications of acute poliomyelitis when it has occurred has been at once recognized, the primary disease has not been distinguished hitherto, but has in fact usually been altogether overlooked. But there is not sufficient reason for assuming that acute poliomyelitis is always a result of this particular diplococcal infection. The symptoms by which acute poliomyelitis is recognized are the consequences of a constitutional alteration of certain cells of the central nervous system, which causes an impairment of their functional efficiency. It is probable that these cell changes may be caused also by the toxines produced in other infective processes.

Avian and Human Tuberculosis.—Shattuck, Seligman, Dudgeon, and Panton (Lancet) have studied the relationship between tuberculosis in birds and in human beings. They find that the human tubercle bacillus is pathogenic to the pigeon in a limited degree only. It sets up a local or local and glandular disease in the pigeon only when injected into the muscles or subcutaneous tissues. The avian tubercle bacillus is pathogenic to the guinea pig in a very limited degree. The human bacillus is not convertible into the avian by inoculation into the bird—i. e., the bacilli are not identical. Theoretically it would, of course, be quite possible that the human bacillus after its insertion into the pigeon might lose certain of its characters and become incapable of exciting more than a trivial disease in the guinea pig or in the human subject from which it was originally derived. Their experiments do not, however, support this theoretical possibility. As evidence of the non-identity of the human and avian tubercle bacillus, the writers attach more importance to the positive results afforded by feeding and inoculation experiments than to the negative evidence in the other direction provided by the opsonic test. The latter shows, it is true, that either bacillus will extract the opsonin from tuberculous serum. But they do not regard this as a proof of their identity; it is by no means a proof, i. e., of the identity of their physiological or chemical properties. The opsonin may be extracted from the tuberculous serum by saturating it with a thick suspension of melanin, which proves that the general removal of opsonin by bacilli is not wholly indicative of specificity, but that it is largely mechanical.

Vaccines and Bacterial Infections.—Western (Lancet) summarizes as follows

the results obtained by him in treating cases of bacterial infection with vaccines according to Wright's method. In cases of lupus, both of the dry and ulcerated varieties, though particularly of the latter, treatment by inoculation has proved a very valuable adjunct to such other measures as procure a local hyperæmia. Out of thirty cases of enlarged tuberculous glands only four failed to show improvement, whilst six were completely cured, eight of which when first seen were discharging from contaminated sinuses. In the case of chronic tuberculous arthritis and in such topographically diverse affections as erythema induratum and tuberculous epididymitis, the results have been almost universally satisfactory; in affections of a non-tuberculous origin, those such as acne, generalized furunculosis, and obstinate carbuncle, which have been treated with their appropriate vaccines, have cleared up with remarkable rapidity. The narrower experiences of pneumococcal and bacillus coli infections are sufficiently significant to foreshadow the far wider fields that seem to be opening before a line of treatment that bids fair, at no distant period, to rank among the most potent weapons of future therapeutics.

The Cause, Pathology, and Treatment of Chronic Rheumatism.

Stockman calls attention to the fact that the symptoms arising from implication of the fibrous tissues about the bladder and thorax often cause much mental anxiety to patients. In the case of the bladder the symptoms consist in dull pain and increased frequency of micturition, but they usually pass off in about a week. When the intercostal muscles and the fibrous tissues of the ribs and sternum are affected, each inspiration may cause pain or discomfort, and if the respiration be deepened by effort, the pain may become acute and darting or stabbing in character. When the fibrous tissue behind the pharynx is affected, the symptoms are chiefly subjective; the patient feels as if the parts were slightly swollen, stiff, and uncomfortable; but little or nothing can be made out on inspection. It is not known whether the pains in the muscles and bones in acute muscular rheumatism are due solely to a true rheumatic infection or whether they occur with several febrile conditions. The general treatment is that of a slight feverish attack and recovery takes place in a few days. If the pains are widely spread over the body, rest in bed, light diet, saline purgation, mild diaphoretics or mild alkaline diuretics hasten recovery and give ease to the patient. Sodium salicylate, alone or with phenazone or phenacetin, greatly relieves the pain and aching; or methyl salicylate may be applied locally. The salicylates, however, do not exercise the same immediate specific action which they show in acute articular rheumatism. A hot bath, followed by a copious perspiration or a Turkish bath, with well-applied massage, if taken in time, may abort the attack. Very often in such an attack the chief site of the pain is localized in the lumbar region, shoulders, neck, chestwall, or lower extremities, and in these places, the painful area is often small and results from serious exudation. The best treatment is massage followed by passive and active movements. One thorough application may be all that is necessary. The parts are very tender, and manipulations must be begun very gently by stroking so as to get rid of the exudation and relieve tension. Little by little more pressure can be borne, first with the palm of the hand and then with the first or knuckles. The local inunction of methyl salicylate alone or mixed with an equal part of liquid paraffine, often relieves the pain, or a ten per cent. solution of menthol in liquid paraffine may be used. Local irritants, such as mustard leaves, are beneficial. In the case of chronic rheumatism, treatment is much more difficult and prolonged. Massage and exercises, the faradic current, and the injection of solution of chromic acid into any of the fibrous nodules, which are clearly enough defined for this treatment, are indicated. General massage is of no use. Treatment must be especially directed to any nodules and indurations which can be felt and to parts which are painful.—The Edinburgh Medical Journal.

The Treatment of Mucomembranous Colitis.

Krng (Scottish Medical and Surgical Journal) states that dietetics undoubtedly form an important factor in treatment. At the present time German physicians favor a diet rich in cellulose material, leaving a large residue, while French physicians are in favor of one leaving as little residue as possible. Germain See states that there ought to be no special restrictions in the dietary—eggs (cooked rather hard), milk, ham, water, and tea *ad libitum*, potatoes, rice, game, etc., may be taken, avoiding fruit, alcohol, effervescing waters, red and white wines. It is noteworthy that Langenhagen states that green vegetables appear in the stools almost unchanged, and that fats also are hardly ever digested. Hence Germain see excludes fats and vegetables from the dietary. Hale-White gives a simple mixed diet—*i.e.*, plenty of fish, meats, eggs, milk pudding, corn-flour, infants' food, buttered toast, bread and milk. He

states that he has not seen any good follow a diet of a large amount of indigestible vegetable material. Von Noorden advocates a coarse cellulose diet, especially bread in large quantity combined with excess of butter, cream, and milk—one leaving a large residue. This dietary is the main feature in his method of treatment. His researches are certainly well worthy of careful attention.

As far as drugs are concerned, there is almost a unanimous opinion at the present time amongst those experienced in the treatment of this affection that there is no specific remedy, although many of them are of considerable value if judiciously administered; in fact much harm is done and valuable time wasted in their almost exclusive and injudicious use, and this applies with special emphasis to the so-called intestinal antiseptics (salol, B-naphthol, etc.). The drugs which have been considered of value are belladonna, strychnine, hydrastin, hyoscyamus, cannabis indica, ergotin, salol, B-naphthol, and the salicylates. With the exception of the former two, which, if properly administered, may be of assistance in the relief of the constipation, the others may be considered useless and often harmful.

The author holds that in any ordinary simple case, and occasionally it may be in some others as well, especially if they are treated at an early stage, many of the various methods of treatment now in vogue, if carried out efficiently, might give an almost equally good immediate result. The numerous literary contributions prove this to be the case. The question arises, What becomes of many of these in the course of a few years? As one would expect, statistics remain silent on this point. Experience, however, teaches us that a large number relapse. It is also to be borne in mind in this connection that many of the cases which are diagnosed and treated as such are not those of true mucomembranous colitis at all, but are examples of the effects of chronic constipation pure and simple, which are decidedly more amenable to such treatment.

It may be stated that the great object of treatment should be directed toward bringing about such a condition of the large intestine as to give rise to a normal response to fecal stimulation, and consequently a normal condition of peristalsis, at the same time employing measures direct or indirect toward the highest improvement in the patient's general condition, and to the amelioration or removal of the neurotic condition. As to the treatment of the intestinal condition from a dietetic point of view, if we regard it as of a traumatic inflammatory nature it might be said that foods leaving a large residue would aggravate and intensify it, and so give rise to diarrhea. Practical experience, however, tells us that this is not so. This result has been pointed to as a proof that the intestinal condition from a dietetic point of. The author does not believe that any such conclusion can be drawn. It must be remembered that we are not dealing with a specific infective inflammation, but with a low traumatic one on a mucous surface. As formerly pointed out, we may have all the symptoms of intestinal catarrh present during life, and nothing found in the intestine post mortem to account for them, and also we may have ulceration in the colon, with no diarrhea or even other ordinary symptoms indicative of its presence.

Cancer of the Cervix and Pregnancy.—Grimoud (Gaz. des Hop.) states that pregnancy aggravates the disease when cancer of the cervix is present, especially in young women, and the progress of the disease becomes very rapid. Its malignancy is in inverse proportion to the vitality of the tissues invaded. The symptoms are more marked than in other cancers of the womb. The pain is at once increased by pregnancy, irradiating in all directions and being very acute. Hemorrhages occur early in the course of the disease, and are of increased amount, endangering the lives of mother and child. Leucorrhea is not a marked sign. Abortions are frequent at about the third month, and premature labors at the seventh month. The nearer the cancer is to the os the more frequent are abortions. The mortality of the child is increased. Labor influences unfavorably the growth of the cancer on account of the friction and pressure of the fetus on the growth; because of the danger of infection; and owing to the obstruction presented by the cancer of delivery, thus increasing danger of hemorrhage, gangrene, fissures, rupture of the uterus, and violent hemorrhage. Labor is generally natural when term is reached, although in some cases there is obstruction to delivery by the growth, and labor is thus prolonged. Uterine inertia is frequent and the organ dilates slowly, having lost its elasticity. About 50 per cent. of the children are born dead. The puerperal condition is most unfavorable on account of the dangers of infection and of hemorrhage. The disease is early propagated to the parametrium, board ligaments, bladder and rectum. When recognized early in pregnancy and the growth is not extensive, operation is demanded, the entire pelvic contents being removed.

Length of Time in Bed After Physiological Labor.

Bouchacourt (La Presse Med.) discusses the time that it is necessary for a patient delivered normally and having a normal puerperium to remain in bed. The length of this time differs in different countries and nations from a few hours to several weeks. Among savage nations it is well known that the mother is confined when on the march, accomplishes her own delivery, and goes on her way with the others. In some country districts it is a matter of emulation among the women to remain in bed as little time as possible before undertaking all the household work, and yet there seem to be few bad results. Among the richer classes, on the contrary, it is the habit to remain in bed a month, and it is difficult to get the patient to leave her bed. The consensus of opinion at the present day seems to be that it is best, in order to secure perfect involution, to remain in bed from two to three weeks, and to return gradually to the ordinary duties of life.

Treatment of Pruritus.

Tremolieres (Presse Medicale) prescribes treatment primarily according to ætiology. Among causes of pruritus he enumerates: the repair of wounds, the unequal pressure of clothing, parasites, bad personal hygiene, cold, heat, atmospheric pressure; depression of the nervous system (senile pruritus), functional disturbances and lesions of cutaneous tissues, particularly varices, alterations in the blood, poisoning by alcohol or other drugs or by certain foods, such as pork and fish; indigestion, constipation, gout, obesity, Bright's disease, hepatitis, icterus; and, finally, definite lesions of the nervous system. Prophylaxis, therefore, is of the greatest importance. As internal remedies, carbolic acid in pills of one and a half grains each, gelsemium, valerian, atropine sulphate or valerianate, arsenic, lactic acid have all been used with varying success. Externally, hot lotions, twice daily, are efficacious with a mild ointment followed by a dusting powder. A favorite French formula for a lotion will be found in Therapeutical Notes. Starch and salol mixtures are contraindicated. Electricity, in its various forms, is coming into common use. Scarification is sometimes successful and relief has followed resection of a nerve.

Rectal Feeding.—Moore (Practitioner) holds that rectal feeding amounts at best to a pronounced subnutrition, and that only in exceptional cases, in which the metabolic processes have been gradually reduced to an abnormally low level, is it possible to provide an amount of proteid such as will establish nitrogenous equilibrium and so prevent disintegration of the proteid tissues of the body or of foodstuffs having a total energy value beyond one-quarter of that dissipated by the organism. In the average case, rectal feeding is associated with progressive loss of weight, and at times a subnutrition may proceed to such a degree as to induce a condition of acid intoxication, particularly in the female. It cannot be relied on to effect that improved nutrition desired by the surgeon before operation. It is doubtful whether it secures the absolute functional rest required in certain gastric cases, for, according to Winternitz, rectal feeding is associated with a secretion of gastric juice.

The best results, then, according to the writer, are to be obtained from enemata of predigested proteids, of albumoses or peptones, the two latter in 10 per cent. concentration of emulsified fat in the form of milk or yolk of egg, and of glucose, in 10 per cent. concentration, with the addition of sodium chloride to 1 per cent.

Pericarditis.—West (Brit. Med. Jour.) believes that, in pericarditis, pain may be due to friction or be of cardiac origin. Cardiac pain is rare, and is met with only with acute cardiac dilatation. Friction is the most characteristic sign, and, when present, is conclusive. Cardiac dullness is always increased. One of the earliest signs is said to be such increase toward the left base. The writer considers this due, not to effusion, but to dilatation of the left auricle. The difficulty of diagnosis, even by the most competent diagnosticians, between pericardial effusion and cardiac dilatation is proved by the experience of paracentesis. Systolic recession of the apex-beat is pathognomic of adherent pericardium when present, but the converse is not true. Effusion muffles the heart-sounds, but they may be equally weak from dilatation only. A perverted pulse-respiration ratio is often as marked in acute pericarditis as in acute pneumonia. True pulsus paradoxus is very rare, except with mediastino-pericarditis; however interesting, it is of no practical use in diagnosis. When effusion is large, there may be bulging or prominence of the epigastric region, with pulsation that can be seen and felt, also displacement of the left lobe of the liver.

The writer cannot understand the objection to opium in heart affections. He has used it largely, and has never seen anything but good follow its judicious administration. Paracentesis is rarely necessary in pericardial effusions of rheumatic origin, which are always serious. When effusion is purulent, further procedures will be necessary,

but paracentesis must precede incision, for there is no other way of ascertaining the nature of the effusion.

The Cutaneous Tuberculin Test.

Feer (Munchener medizinische Wochenschrift) reports the results of the application of von Pirquet's tuberculin inoculation test in 344 children below the age of fifteen years. Of the number 19 per cent. gave a positive reaction, none of them being less than six months old, and only 7 per cent. of the positive cases occurring in children less than twelve months old. Fifty-seven per cent. of the number were between the ages of ten and fifteen years, the increasing proportion of positive results as the subjects increased in age being very strikingly shown. Of 25 cases clinically certain as tuberculosis, 24 gave a positive reaction, the exception being a thirteen-month-old infant with tuberculous peritonitis, the diagnosis being confirmed at autopsy. He considers that the cutaneous method has the same value as the hypodermic injection of tuberculin, while it possesses many evident advantages over the latter. In dealing with older children and adults many positive results are obtained from individuals ostensibly healthy, that is, having small inactive foci, and the reaction is therefore of little value with them and a negative outcome is of more importance. In young infants, however, the method increases in value the younger the child. The cutaneous inoculation is greatly to be preferred to the conjunctival application of the tuberculin owing to the serious risk of producing corneal ulceration and other complications.

Chronic Middle Ear Suppuration.

Love (The Glasgow Medical Journal) observes that otoscopic examination is chiefly valuable where mastoid tenderness and fever are absent. In those cases of chronic middle ear suppuration where discharge is the only feature present, and where the question of operation is raised, otoscopic examination has been part of the routine treatment for a long time. Here the situation of the perforation, the situation of granulation masses, the bulging of the posterior superior area of the inner end of the canal, the washing out of cheesy masses from the attic or aditus ad antrum, may confirm the opinion that operation is necessary, but if a discharge has resisted well directed treatment the cause is almost always the presence of disease in parts inaccessible through the external auditory canal, and the treatment is the laying open of the whole abscess cavity by operation. Ossiculectomy for middle ear suppuration is not often a wise procedure. Where operation is necessary at all, the mastoid operation is the operation of choice. Where the mastoid operation is not necessary, careful clearing of the ear will usually procure cessation of discharge. There is a small number of cases where the disease seems limited to the ossicles, and in which ossiculectomy may be called the operation of choice. There is a larger number of cases in which the mastoid operation is not permitted by the patient, but in which ossiculectomy will lessen the risk by improving the drainage. In these latter ossiculectomy may be adopted as better than nothing, but in many cases the mastoid process will have to be opened in the end. The number of successes reported after ossiculectomy by some writers seems to the author to indicate that ossicles are often removed which should be left, and that when discharge ceases after ossiculectomy it would probably cease by a careful dressing of the middle ear over a lengthened period.

The Sanatorium Treatment of Active Insanity by Rest in Bed in the Open Air.

Easterbrook (The Scottish Medical and Surgical Journal) remarks that, when comparing the general therapeutical effects in active insanity of outdoor exercise, indoor rest, and outdoor rest, outdoor exercise benefits primarily the physical condition, but may retard the mental improvement; indoor rest benefits primarily the mental condition, but may retard the physical improvement; and outdoor rest benefits from the first both the mental and the physical condition. Outdoor rest thus from the outset promotes both mental and physical improvement, and so retards neither; further, it avoids the risk of undue exhaustion which attaches to the method of exercise; and, lastly, it obviates the evils of bodily inactivity and sluggish metabolism which attach to prolonged indoor rest. Further, he thinks that his observations show: (1) That the advantages which have hitherto been attributed to the exercise treatment of active insanity are due, not to the exercise, but to the fact of the patient being out of doors; for regular exposure of the patient to the open air during most of the day without exercise secures the characteristic physical improvement. (2) That the disadvantages which have hitherto been attributed to the prolonged treatment of the neuroses and psychoses by the indoor rest or Weir Mitchell method are due not so much to the factor of rest as to the confinement indoors; for the sanatorium treatment by rest in bed in the open air not only prevents the evils of sluggish metabolism and the like, but remedies them if present, securing an all round

physical improvement; and in his experience the open air rest treatment may, with benefit and safety, be continued for months, if necessary, without recourse to massage, active movements, movements with resistance, electrotherapy, and the like, it being, however, advisable in such cases to permit the daily walk to and from the verandas morning and evening, and every now and again to allow the patient to sit up in a chair in the open air for a day or perhaps more, this being done chiefly with the object of ascertaining whether the change will be beneficial, apart from the reason that it introduces in such cases the desirable element of variety in the routine of the treatment. The sanatorium or outdoor rest treatment of active insanity is simply the hospital treatment by rest in bed carried out daily in the open air in verandas attached to the wards, instead of inside the wards and their bedrooms as formerly. Having become convinced from his own experience of the many advantages of the rest method over the exercise method in the treatment of those actively insane, having been much impressed by the improvement exhibited by tuberculous patients, sane and insane, undergoing the open air treatment, and noticing also the bodily and mental improvement of the ordinary sick and infirm but non-tuberculous insane after an occasional day in the fresh air and sunshine in favorable summer weather, he decided to combine the "rest cure" with the "open air cure" as a systematic treatment for the acute and active insane, and made provision for this purpose in 1903 in the design of the hospital recently added to Ayr Asylum, with the opening of which, in 1906, the regular practice of the sanatorium treatment of active insanity was commenced.

Krause Skin Flaps in Leg Ulcers.

Chaussy (Munchener medizinische Wochenschrift) says that in spite of the many methods of treatment at our command for the treatment of obstinate leg ulcers success sometimes seems unattainable and even at the best relapses are frequent. A plan of procedure that does not appear to be as widely used as it deserves is that of the transplantation of thick skin flaps as suggested by Krause. The Thiersch method of skin grafting while often successful primarily does not yield a surface that is resistant enough to stand the wear and tear to which the extremities are exposed, while the Krause flaps appear to possess much greater resisting power. In an instance described by the author in which a large ulcer on the leg of an itinerant carpenter forty-four years of age was treated by this method seven years previously, at the time of writing the result was still a perfect one in spite of the facts that the patient was also suffering from elephantiasis and that several new ulcers had formed as the result of a chronic eczema. Essentials in making the flaps are dry operating, absolute asepsis, and avoiding all antiseptics, only soap and water and tincture of soap being used for cleansing the area to be transplanted and the skin being thoroughly dried with sterile cloths. The flap should be a third larger than the area to be covered, and is held in position by a light dressing of boric acid ointment. The method requires great care and attention to detail, but in spite of the failures that the beginner is likely to encounter it is capable of yielding such excellent results that the author considers that it should be resorted to more often than is at present the case.

Chloroform Shock--Lessening by Transfusion.

Burkhardt (Archiv fur klinische Chirurgie) made the interesting discovery that although an infusion of salt solution given intraperitoneally, after chloroform narcosis, had no beneficial influence, a similar infusion given before narcosis lessened the time of recovery, shortened the period of albuminuria, and made over twice as much chloroform necessary to produce the death of the animal.

The experiments were performed on dogs, 250 to 300 cubic centimeters (8 to 10 ounces) being given intraperitoneally ten to twenty minutes before or five to ten minutes after the chloroform. Although the animals injected after the anesthesia excreted a very much greater amount of urine than those not treated, the excretion of the chloroform was not influenced. The dogs to which the injection was given before anesthesia passed a slightly increased amount of urine, but this contained much more chloroform. The excretion of the chloroform in the urine ceased several hours sooner than in the controls.

These results are explained by the fact that the principal element in the shock of chloroform is fall of the blood-pressure, and this is prevented by the use of salt solution before but not by its use after the anesthetic. In cats a mixture of air with 1 1-5 per cent. chloroform causes a steady and progressive fall in the blood-pressure, which ends in the death of the animal. If a solution of salt is given immediately before narcosis, this concentration is insufficient to produce a marked fall. If an infusion is given in the course of a narcosis, it is followed by an immediate and marked rise in blood-pressure. For the last four months all

patients operated on in chloroform narcosis have been given a hypodermoclysis of 1500 to 2000 cubic centimeters (1½ to 2 quarts) fifteen to thirty minutes before the operation. The fall of blood-pressure was very much lessened, the pulse good, the recovery from the anesthetic prompt, and after-phenomena—headache, vomiting, weakness, etc.—absent. There was no tendency to an increased amount of bleeding.

Chronic Articular Rheumatism and Arthritis Deformans.

Hoffa (Deut. Med. Woch.) bases his classification on a careful study of radiographs, and on analysis of histories and clinical signs, is prompted to divide the group of conditions recognized as rheumatoid arthritis, or arthritis deformans, into three types: (1) arthritis deformans, (2) poliarthritis chronica progressive primitiva, and (3) chronic articular rheumatism. Arthritis deformans affects the large joints. It has periods of activity and remission, and is unaccompanied by muscle atrophy. The author's radiographs show spurs as the earliest lesions, followed by baring of bones and the production of osteophytes. Characteristic of this form is the disappearance of bone and cartilage going hand in hand with new growth of bone and cartilage. Poliarthritis chronica progressiva primitiva progresses steadily, attacking first the small joints, destroying the bones and producing muscle atrophy above and below the joints, resulting in deformity and displacement. Radiographs show marked atrophy of bone and disappearance of cartilage. The capsules of these joints, as shown by radiographs of joints distended with oxygen, are to a great extent obliterated. It is differentiated from arthritis deformans in that in this affection we have a primary disease of the skeletal portion of the joint, whereas in arthritis chronica progressiva, or arthritis destruens, we have a primary disease of the soft parts of the joint. Chronic articular rheumatism follows repeated attacks of acute rheumatism. He further divides these chronic joint conditions under two heads,—infectious and non-infectious.

Intestinal Polyposis and the Relation of this Condition to Carcinomatous Degeneration.

Doering (Archiv fur klinische Chirurgie) on the bases of two cases treated in his own clinic, one of which underwent malignant degeneration, contributes a statistical study of this subject from which he shows that the disease is commonest in men, and is most frequently observed between the fifteenth and the thirty-fifth year, this being an affection of youth. Etiology is unknown. Though the affection is commonest in the rectum and sigmoid, it has been observed even in the stomach and duodenum. The small intestine is partially immune. The flexures of the colon are especial seats of predilection, and hence of obstruction, even in the absence of ulceration. Invagination is a common complication. The seat of carcinomatous degeneration which may occur in young people is usually in the rectum, rapidly growing, circumferentiating tumors or extensixe ulcerations forming, over the indurated walls of which the soft polyps project. There is a strong tendency to metastases, particularly in the direction of the liver; at times in the peritoneal cavity or the bones. Following the rectum, the sigmoid flexure is the most frequently involved in cancerous degeneration. Carcinoma secondary to polyposis develops from the fifteenth to the thirty-fifth year.

Polyposis of the rectum, which lasts many years, begins as a chronic catarrh of the bowels. Diarrhea alternates with constipation. In the beginning there may be troublesome tenesmus, rarely colic. Vomiting is rare excepting when obstruction has developed. The most constant symptom is blood in the stool. Direct passage of fresh clots is extremely rare. Combined with the blood is the discharge of thin mucus. This may be very abundant. Diagnosis is based on direct examination. When the rectum is not involved the diagnosis will be suggested by a persistent, long-lasting colonic catarrh occurring in a young person with recurring or persistent blood in the stools. Occasionally there may be a discharge of detached polyp. Operation may be needful before the diagnosis is cleared.

The treatment of this affection, if it be wide-spread, is of no avail. Strengthening diet, rectal irrigation, and washing out with astringents are indicated. Solutions of tonnin have given the writer excellent results. Surgical treatment consists in the shelling out of all the polyps that can be reached. Since the polypoid growth is never limited to the rectum, this is a futile procedure and has led to fatal bleeding. Equally useless is the extirpation of the polypoid rectum. It is indicated only when carcinomatous degeneration has taken place. An artificial anus has been formed in a number of cases, but without particularly good results.

The prognosis of the affection is most unfavorable. Of the fifty reported cases the author states that there is but a single one which is perchance permanently cured. This one has been followed four years after operation. She was subjected to excision of the rectum.

The Symptoms and Aetiology of Mania.

Bruce (The Edinburgh Medical Journal) says in his first lecture that it is a commonly accepted belief that maniacal states are conditions of brain toxæmia or brain poisoning, and that it is also commonly accepted that hereditary predisposition is the chief predisposing cause of all insanities. As to the exciting causes of mania, there are evidences of bacterial toxæmia. (*a*) In the blood serum of over 90 per cent. of patients suffering from mania one can demonstrate the presence of an agglutinin which agglutinates the red blood corpuscles of healthy persons. An apparently similar agglutinin is present in the blood serum of many sane and apparently healthy persons. By infecting rabbits with streptococcal and staphylococcal bacteria, a similar agglutinin makes its appearance in the blood serum of the infected rabbits. The presence of such an agglutinin in the blood serum would therefore apparently indicate some form of streptolococcal or staphylococcal invasion. As both the sane and the insane may show this symptom of bacterial toxæmia, there must be some further factor in the production of states of mania, and this further factor is probably an inherited or acquired unstable nervous system. This means that the sane and the insane may suffer from similar toxæmias, but whereas the brain of the sane man is stable the toxines produce no mental symptoms, while the brain of the insane man is unstable and readily becomes disordered by toxic action. (*b*) Although the bodily temperature shows little evidence of toxic disorder, a simultaneous observation of the white blood corpuscles of the patient demonstrates that a state of marked toxæmia exists in nearly every case. (*c*) The disorders of the alimentary tract are such as one would expect to find in persons suffering from toxic diseases. Further, the bacteriological flora of the alimentary tract is altered in at least 50 per cent. of the subjects of mania. (*d*) Lastly, the nitrogenous excretion by the urine in the subjects of mania indicates an excess of metabolism similar to that found in known infective diseases.

Prolonged Retention of the Ovum after Abortion.

Garipuy (Presse Med.) calls attention to the rather frequent, partial, or total retention of the ovum after abortion. The complications that thus arise are hemorrhage and infection. Rarely the entire ovum is retained. The placenta may be retained by the uterus with remarkable tolerance, and the absence of general or local symptoms makes the diagnosis extremely difficult. The placenta may be eliminated in fragments at stool, without the knowledge of the patient. In case of entire retention of the ovum there are no transformations of the tissues. The ovum remains in the uterus for a variable time without any changes and without symptoms and is then expelled intact. When only the placenta is retained it may undergo changes that transform it into a placental polypus, with a proliferation of the connective tissue of the villosities and of their epithelial covering. The persistence of vitality of the adherent placenta is permitted; coagulation of the blood is prevented and circulation continues. There are almost no signs of retention, and it is often impossible to tell whether the abortion has taken place. The uterus acts as it does after a threatened abortion and closes itself on the incomplete ovum as if this were intact. The absence of hemorrhage is explained by the absence of separation of the placenta. If the woman has been examined and pregnancy diagnosed before the abortion, this is an aid to diagnosis; but if this has not taken place the difficulties are greater. There may be no bleeding, and not even a serous flow, or clots may be expelled. Pelvic pains may be absent. Only physical examination will aid us. Closure of the cervix may be normal. There may be a diminution in the size of the uterus, and examinations at intervals may be of service. Modifications of form of the uterus have some value. The consistence will be neither the peculiar softness of pregnancy, nor a normal hardness, but these differences are evident only to the skilled touch. Metritis and subinvolution complicate the diagnosis, but in these conditions there is often tenderness of the uterus. Having satisfied oneself that pregnancy does not exist, it is allowable to dilate the cervix and remove whatever is found there.

The Treatment of Serous Effusions.

Barr (Brit. Med. Jour.) describes what is evidently a new method of treating serous effusions. He injected one fluid drachm of adrenalin chlorid solution into the pleural sac, in a case of abdominal cancer extending to the pleura, after aspiration of a large quantity of bloody serum, the object of the injection being to lessen the secretion. There was no further secretion, consequently no further tapping and the patient spent the remainder of her life in perfect comfort so far as her chest was concerned.

This treatment was extended also to cases of ascites due to hepatic cirrhosis in which marked results were not expected. However, the rapidity of secretion was diminished and no ill effects were noted. The quantity of adrenalin solution used varied

from two to three fluid drachms.

In a case of pericarditis with effusion, in a lad, nineteen fluid ounces of serum was withdrawn from the pericardium, but a reaccumulation rapidly followed. The patient's condition becoming critical, the paracentesis was repeated, twenty ounces of fluid being withdrawn with immediate improvement in the quality of the pulse. Forty minims of solution adrenalin chlorid, 1-1000, wos injected into the pericardium. The pulse at the wrist disappeared, the boy became of an ashy leaden hue and had an anxious expression. Immediately nitroglycerin and atropin were administered and the boy quickly rallied. No further tapping was required. The same patient had a subsequent attack of left pleurisy with effusion. Ten fluid ounces of serum was withdrawn from the chest and one fluid drachm of adrenalin chlorid solution was injected. There was no reaccumulation.

In a case of tuberculous peritonitis and ascites 200 fluid ounces of serum was drawn and two fluid drachms of solution adrenalin chlorid introduced into the peritoneal cavity, with four pints of aseptic air (to prevent adhesions). Thirteen days later 237 fluid ounces of serum was withdrawn and two fluid drachms of adrenalin chlorid solution and two pints of air were injected. Upon a third occasion, eleven days later, 196 fluid ounces of serum was obtained by tapping, and three fluid drachms of adrenalin chlorid solution and four pints of sterile air were injected. No reaccumulation of fluid occurred.

In a female child of seven years, one pint of fluid was withdrawn from the pleural cavity and one fluid drachm of adrenalin chlorid solution and half a pint of sterile air were injected. Though it was highly probable that the pleurisy was tuberculous there was no reaccumulation of fluid and the patient recovered.

Empyema in Children.

Nathan (Archiv. f. Kinderheilkunde) reviews the histories of 145 cases of pyothorax observed during 13 years of attendance at the "Kaiser und Kaiserin Friedrich Krankenhaus." Eighty-seven—60 per cent. were boys, and 58—40 per cent. girls. The disease was most frequently observed in children under one year. Pneumonia was responsible for 52 cases, scarlatina for 14, morbilli for 10, diphtheria for four, influenza, pertussis, pulmonary abscess and trauma for two to one respectively. In 59 cases the disease appeared apparently spontaneously.

The right side was affected 79 times with a mortality of 62 per cent.

The left side was affected 63 times with a mortality of 65 per cent.

Both sides were affected three times with a mortality of 100 per cent.

Bacteriologic examination of 35 cases revealed pneumococci in 11 cases, diplococci three times, streptococci six times, and mixed infection in the others. Of the 145 cases treated 43 were cured, four improved, three remained diseased, and 93 children died. The mortality was highest among infants under one year of age—97 per cent. —and became gradually lower, down to 25 per cent., among children between eight and nine years old. Primary resection was carried out in 91 cases, incision in seven, punctures in eight, puncture with consecutive resection in 16 cases. In the last few years the treatment consisted chiefly of primary resection. In nurslings the author is in favor of puncture and aspiration followed by resection after from 24 to 48 hours, in order to prevent the shock accompanying sudden evacuation of the fluid. The author also recommends the administration of an anesthetic (primary anesthesia) to prevent shock attending aspiration.

The author followed up the histories of 34 cases discharged cured and found their condition to be generally good, except as to their greater predisposition to "colds." One case discharged nine years ago and one six months ago became subject to tuberculosis. One case operated upon six years ago was suffering from tuberculous bone-disease—without involvement of the lungs. In two cases the operation was followed by secreting fistulæ. In all cases the resected portion of rib was replaced by periosteum, bridged over by bone-portions from the neighboring ribs. There was no displacement of the heart nor were there any pleuritic friction-sounds.

Asymmetry of the thorax was observed, however, in all cases. The fossa supraclavicularis on the previously affected side was enlarged, the anterior thorax wall was flatter; the chest circumference smaller on one side; lateral inclination of the head; sinking of the scapula; and most frequently (21 cases—67 per cent.)—dorsal scoliosis. Generally two or more of these defects were observed in each case. In three children the healthy side became defective.

To obviate the deformities following pyothorax the author recommends suitable gymnastic exercises.

Pathological Changes Produced by Alcohol.

Bumgarten (Berlin. Klin. Woch.) describes experiments made by injecting alcohol of various strengths subcutaneously in dogs, rabbits, and guinea pigs, with a view to determining particularly the effect of the drug in producing cirrhosis of the liver.

These experiments do not afford any confirmation of the clinical view that the chronic administration of alcohol leads to severe degenerative or cirrhotic changes of the parenchymatous organ. The only pathological finding in the experiment animals in the cases of acute fatal intoxication consisted in the presence of numerous hæmorrhagic erosions of the gastric mucosa. Other authors have observed these and ascribed them to the use of the stomach tube employed in administering the drug, but the writer used the subcutaneous method of administration. In a large series of autopsies performed during his fifteen years of service in Konigsberg, he found that only 5 or 6 per cent. of the alcoholics that came to the post-mortem table presented cirrhotic livers, and this fact, together with the negative results of animal experimentation, lead the writer to agree with Hansemann that the abuse of alcohol is only a predisposing and not an etiological factor in the causation of cirrhosis of the liver. He suggests that in such cases the functions of the gastrointestinal wall may be impaired so that the absorption of toxic products that may possibly have the effect of favoring cirrhotic changes is rendered possible. The absence of cirrhosis in animals subjected to chronic intoxication with alcohol might then be explained on the assumption that such toxic bodies are not formed in the gastrointestinal canal of animals.

Signs of Visceral Disease.

Galloway (British Medical Journal) classifies the cutaneous signs of liver disease as follows: 1. Eruptions of the type of erythema exudativum, occurring in cases of disease of the liver with portal obstruction, such as cirrhosis. Cutaneous manifestations of the erythematous type occur during the course of diseases of the liver, especially in those cases in which the portal blood passes into the general and therefore into the cutaneous circulation without being subjected to the normal cleansing action performed by the liver. (a) Urticaria. This is quite uncommon in liver disease, the circulating toxines tending to produce the allied eruptions of the erythema multiforme type. (b) Erythema exudativum. This is not uncommon in cirrhosis of the liver, occurring most profusely on the trunk as discs or as segments of circles. The irritation and prurit s may be intense. The attacks do not usually last more than ten days, but are apt to recur. The eruption is frequently complicated by jaundice. (c) Hæmorrhagic exudative erythema. Erythematous eruptions occasionally become purpuric, varying from a slight amount of blood staining to intensely hæmorrhagic lesions, occurring as elevated spots or patches having the color of a superficial hæmatoma. (d) Erythema leading to atrophy of the skin. This so-called "lupus erythematosus" is entirely distinct from lupus vulgaris; there is no distinct relationship, and possibly only in some cases a remote connection with tuberculous diseases of other organs. The inflammation and exudation are of a peculiar type, leading to atrophy of the connective tissues and alterations in the character of the epithelium. 2. Dilatation of superficial blood vessels as an indication of diseases of the liver. Several forms of dilatation of the superficial veins occur: (a) A very striking type is the enlargement of the subcutaneous veins of the abdomen, forming collateral channels for the return of blood, with a general course from the groin upwards to the intercostal veins and even towards the axilla. These enlarged veins are evidences of obstruction to the vena cava rather than to the portal circulation. (b) Dilatation of venules is usually noted in one of two situations: First, those radiating from the umbilicus and permitting blood to pass backwards from the liver through its round ligament into the subcutaneous veins of the abdomen. This occurs in cases of obstruction to the portal circulation arising in the liver itself, and permits of the passage of portal blood directly into the general circulation. The condition is known as "caput medusæ" or "cirsomphalos." Second, enlargement of the "costal fringe of venules" along the lower border of the thorax. This is not specially significant of hepatic disease. Third, indications occurring in the course of the lymphatic vessels. An early sign of cancer of the bile ducts and of the gall bladder is the appearance of an indurated patch involving or in the immediate neighborhood of the umbilicus. Fourth, primary new formations in disease of the liver. Xanthoma. The majority of cases of the widely spread form of xanthoma are accompanied by important morbid changes of metabolism, especially associated with the functions of the liver. Fifth, anomalies of pigmentation as signs of visceral disease. (a) Hæmochromatosis. This is due to the destruction of red blood cells, with the formation and deposition of abnormal pigment throughout the body and in the skin. Most of the cases are associated with disease of liver, and often with glycosuria. (b) Jaundice. This, of course, is the most common and most important of the indications of disease of the liver.

Theory and Practice of Serum Diagnosis in Syphilis.

Fleischmann (Berliner Klinische Wochenschrift) studied the effects produced by serum in 230 cases, 192 syphilitic, 38 non-syphilitic. The thirty-eight control cases included cases of non-syphilitic brain tumors, tuberculous meningitis, typhoid fever, pneumonia, sepsis, myelitis, apoplexy, and carcinoma. In all of these the reaction was negative. The syphilitic cases were divided into four groups: 1. Positive syphilitics, with positive syphilitic symptoms manifest at the time of investigation, eighty-nine cases; 2, positive syphilitics, without manifest symptoms at the time of investigation, sixty-four cases; 3, patients with symptoms suspiciously like syphilis and questionable former infection, thirty-two cases; 4, positive syphilitics, who presented symptoms of disease which could scarcely be ascribed to the former syphilis, seven cases. The eighty-nine patients who composed the first group presented at the time of investigation primary, secondary, tertiary, or the so-called metasyphilitic symptoms. In these the serum gave a positive result in eighty-three, 93.5 per cent.; a negative in six, 6.5 per cent. The six negative cases were a case of tabes dorsalis of several years' duration, which had been repeatedly treated; another case of tabes dorsalis which had been under treatment for years, an untreated case of tabes dorsalis with a syphilitic history of twenty-eight years' duration, an ulcer of the nasal sæptum that had been treated for three years with inunctions and injections, an old syphilitic chorioditis, and secondary papules in a patient during treatment. The first five were therefore cases in which the process had been long existent or exhausted, and in four had undegone specific treatment. The second group was composed of sixty-four patients, who presented no manifest symptoms, though conceded to have been infected with syphilis. A positive reaction was observed in thirty-three, 52 per cent.; a negative in thirty-one, 48 per cent. A comparison of these results with those obtained in the first group shows that the presence of symptoms is of considerable moment in the production of the reaction. The author suggests that in certain of these cases the presence of the reaction may be an indication for the renewal of treatment of the disease. In three of the cases that gave a negative result fresh syphilitic symptoms appeared some months later, and then the reaction was positive. The negative reaction tells us nothing. In the thirty-two cases of the third group one half gave a positive reaction, one half negative. No positive conclusion can be drawn as to the value or lack of value of the reaction in these cases, but in a considerable number the positive reaction was confirmed by the results of specific treatment, and the negative by the course of the disease. The fourth group comprised seven syphilitics who were suffering from probably non-syphilitic skin affections. The reactions obtained were positive in one, negative in six. The author concludes that in spite of our ignorance in regard to the theoretical basis Wasserman's reaction has an extensive clinical application in the hands of careful investigators experienced in serological work. Its chief domain is in the cases in which suspicious symptoms appear while infection is denied or is uncertain. A positive reaction may be considered diagnostic in such a case, and a negative result, particularly in the absence of former treatment, may, under certain circumstances, be of value. In the second place the test may have a certain value in old cases which have presented no symptoms for a long time, and the question needs to be determined whether to renew treatment or not. A positive reaction might be an indication for such renewal of treatment, even though a negative result would not contraindicate it when suggested otherwise. The reaction does not appear to be useful for the diagnosis of cured syphilis.

Deaths Under Anaesthetics.

Waldo (Lancet) has endeavored to ascertain the exact facts regarding the mortality in Great Britain due to anæsthetics, and has examined the methods whereby statistics of the kind are officially presented to the registrar general. His conclusions are as follows: 1. That present available data as to deaths during anæsthesia are so imperfect as to be useless for the purpose of formal investigation. 2. That the returns of such deaths are for the most part obtained from coroners' returns of deaths occurring in hospital practice. 3. That only a small proportion of deaths under anæsthesia in private practice ever come to the notice of registrars or coroners. 4. That imperfect as are the returns for England and Wales, those of Scotland and Ireland are still less trustworthy. 5. That with such imperfect data it is impossible to form any trustworthy conclusions as to the absolute rate of fatalities to administrations, or to the relative proportions of deaths to deaths in the case of particular anæsthetic deaths. 6. That it is highly desirable to arrive at satisfactory conclusions as to the precise facts of all deaths under anæsthesia, both for the safety of the public and the furtherance of scientific knowledge. He therefore recommends: 1. That no general or local

anæsthetic shall be administered by any but a duly qualified medical man, except in most exceptional circumstances, which shall be duly reported to some recognized official authority. 2. That full details be kept by the anæsthetist of all administrations of anæsthetics, whether in hospital or private practice, including date, name, and address of patient, of operator and of administrator, nature of operation, the drug used, and other pertinent details. 3. That a register of all administrations of anæsthetics be kept in all medical charities, poor law infirmaries, asylums, and other public institutions. 4. That so far as possible special skilled anæsthetists be appointed to all hospitals and infirmaries, and that resident anæsthetists be provided in all the larger institutions. 5. That when the administration of an anæsthetic is intrusted to a junior qualified man, he should be supervised by a skilled anæsthetist, except where he can produce a certificate of special skill and experience as an administrator, or where a skilled anæsthetist is not available. 6. That notification be made to the coroner of all deaths occurring at any stage of general anæsthesia by the anæthetist and others concerned. 7. That coroners be required to hold a public inquiry into all cases of death during anæesthesia, and that they make a detailed report to the registrar general, together with the verdict. 8. That a commission might with advantage be appointed to inquire into the present facts of deaths under anæsthesia, so far as may be ascertainable.

Laryngostomy.

Sargnon and Barlatier (La Presse Medicale) in a brief historic sketch of this operation, say that it was first performed, to the best of their knowledge, by Professor Ruggi in January, 1898, but its merits were prominently brought forward by Killian in 1906. They describe the operation, which they divide into, 1, the operation itself; 2, the dilatation and the dressings; 3, the autoplasty; and, 4, the watching and the maintenance of a tracheal orifice. Two varieties are named, the typical tracheolaryngostomy and the total or partial laryngostomy. The indications for laryngostomy are laryngotracheal stenoses, in order that they may be dilated, and when there are no stenoses to permit inspection or treatment, such as dressings, caustics, phototherapy, radiotherapy, or curettage. The latter cases include those of malignant tumors in their early stages, certain forms of glottic and subglottic tuberculosis, certain forms of laryngeal paralysis, and recurrent papillomata of the larynx. It is specially indicated in cicatricial strictures. The contra-indications are not numerous. The operation should not be performed when there is pus in the trachea, when there is fever, when there is a severe bronchitis, or when there is an obstacle in the trachea below the place where the canula would be, a papilloma, for example. The inconveniences are slight. After the removal of the canula the vocal troubles clear up, and they state that many of their patients sing. The results of the operation they consider very encouraging, and they believe that it furnishes a certain and definite cure for serious cicatricial stenoses otherwise incurable.

Arterial Hypertension and Eclamptic Seizures.

Cherie (Ann. de Gyn. et d'Obst.) discusses the relation of high arterial tension to the eclamptic seizures of pregnancy and the puerperal state. He has made examinations of the tension in women both in normal and pathological states and finds that in pregnant women in a normal condition the arterial tension is normal, except during each pain, when there is temporary rise. In albuminurics also the author sometimes found the tension normal, but there seemed to be no constant relation between the tension and the amount of albumin in the urine. In some cases arterial tension falls with the removal of chlorides from the system and in others it rises. In menacing cases of eclampsia all authors agree that there is a rise of arterial tension, and that the tension continues high until the crisis of the disease is over, and as the condition improves it sinks. As soon as arterial tension rises in a pregnant woman the physician should fear a seizure. The author bslieves that this rise of tension is an expreesion of the acute intoxication, a symptom, and not a cause of eclampsia. He attributes considerable importance to this rise of tension in the production of the visceral hemorrhages that are found in eclamptic patients at autopsy. The capillary walls become altered and cannot resist the hypertension and hemorrhages result. These hemorrhages are most frequent in the liver on account of the peculiarly active circulation of that organ during gestation. The indication is to lower arterial tension in order to avoid these hemorrhages. Venesection with withdrawal of considerable amounts of blood is useful. These facts are of prognostic value in pregnancy. As soon as a rise of tension is demonstrable measures should be taken to lower tension for fear of a seizure. Absence of high tension indicates safety for the patient even when albumin is present in the urine. The attack having passed, a renewed attack is presag-

ed by a renewed rise of pressure. An enlarged heart is found in these patients coincident with the renal disease. The high tension is dependent on the condition of the urinary organs.

The Lower Segment of the Uterus.

Jeannin (Presse Medicale) distinguishes the lower third of the uterus from the other two-thirds of the body, in other words the isthmus, as the lower segment of the uterus. It is of importance in obstetrics, although not anatomically in the nonpregnant uterus. It appears only at the beginning of gestation, and at the end of gestation is seven to eight centimeters in width and about two millimeters in thickness. Its lower limit is the internal os. The upper limit is shown by the lessened thickness of the muscular wall, by the existence of a large circular vein, by being the lower limit of the firm attachment of the peritoneum to the uterine wall, by the situation of the first transverse branch of the uterine artery, and by being the limit of adhesion of the membranes of the fetus to the uterine wall. The anterior wall is much more distended by the fetal presenting part than the posterior, and is thinner. The cervical orifice is nearer the posterior than the anterior wall of the uterus. In front the inferior segment is in relation with the peritoneum and the bladder, which is pushed forward and becomes a concave structure with two lateral pouches. Laterally are the hypogastric sheaths containing the uterine artery. Behind, the peritoneum covers it and extends down into the cul-de-sac. The wall is constituted by the external and internal muscular layers, the middle layer being lacking. The mucous membrane does not differ from that of the rest of the uterus. The form of the inferior segment of the uterus differs with the fetal presentation. After labor it resembles a floating sac in the vagina. During pregnancy the inferior segment lends itself to the development of the fetus by stretching. According to some this is the cause of the beginning of labor. Artificial excitation of it by the use of a balloon is a most efficient means of bringing on labor. During labor it at first contracts, afterward remains inert. During pregnancy the implantation of the ovum on this segment is a cause of many abortions, and later of placenta previa and severe hemorrhages. During labor the adhesion of the ovum to this segment is a cause of very slow dilatation. Its thinness may result in uterine rupture.

Ovarian Teratomata.

Shattock (Lancet) proposes the following theory which may explain both the frequency of the ovarian embryomatous cyst and its particular location, a theory with which the occurrence of embryomatous cysts in the testicle is not incompatible and which at the same time is in harmony with their rarity. This theory is, that the ovarian teratoma results from the fertilization of one of the primordial ova in the ovary of the embryo, so that the embryo gives rise to a second imperfect individual whose origin is, therefore, not synchronous with but of later date than itself. It is the formation of one embryo within another, and the name suggested for the theory is that of epi-embryogenesis. With respect to the access of spermatozoa to the primitive ova, it is not necessary to suppose that a second penetration of the developing ovum takes place. More than a single spermatozoon may perforate the investing membrane of the ovum. It becomes thus quite conceivable that surplus spermatozoa may remain about the segmenting mass or morula, may become engaged between its component cells, and in this way be actually ready in the blastoderm to fertilize the primordial ova which are developed so soon after its lamination and the cleavage of the mesoblast which results in the formation of the body-cavity. The longevity of spermatozoa when under conditions not adverse to their life is a subject upon which little is known. Somewhat to the point, is the fact, that after a single impregnation the hen of the turkey will lay the entire succession of fertile eggs, about twelve in number, one egg being laid about every other day and the whole process extending over a period of about four weeks. Not only does this theory of an epifecundation of primordial ova in the ovary of the embryo explain the frequency and particular location of embryomatous cysts of the ovary, but it explains the multiplicity of such cysts in the same ovary and their occurrence in both the ovaries of the same patient. The theory, again, will account for the difference in color of the hair in multiple teratomatous cysts, or of the teratomata in cysts of opposite ovaries. For such differences become examples only of the differences in color so frequently seen in children born of the same parents, or still more closely in heterologous twins whose hair may be of different color. Nor does the difference in color between the hair of the embryoma and that of the patient offer any difficulty. The patient is, while yet an embryo, the mother of the teratoma; the father of the teratoma is the father of the patient. The color of the hair of the embryoma need not, therefore, resemble that of the patient, the mother; it might resemble that of the father, or it might not resemble either, but that of a more remote ancestor.

Serum Treatment of Puerperal Sepsis.

Bohnstedt (St. Petersburger Med. Woch.) says that the severest form of puerperal fever is caused by the streptococcus; hence the attempt has been made to combat its ravages by the use of anti-streptococcus serum. Marmorek's serum was used to immunize the patient, and was produced by passing the poison through animals. This passage lessened their virulence toward man, and thus rendered the serum useless for man. Tavel attempted to use a serum which had not been passed through animals. Here the many varieties of streptococci rendered the serum useless in many cases. Thus arose the polyvalent anti-streptococcus serums. Puerperal fever is so varied in its symptoms and onset that it has been difficult to systemative the observed effects of the sera. Theoretically the septic process should be made worse by the injection of sera. The anti-streptococcus serum of Galiritchewski is an anti-bacterial not an antitoxic serum. It acts on the capsules of the germs so as to permit of the action of alexins and complements in the patient's blood which kill the bacteria. The endotoxins or proteins of the cell body are set free and must be neutralized in the blood. If there be enough complements in the blood to neutralize the total amount of poison set free the bacteria will all be destroyed and their poisons neutralized. This serum is useful in streptococcus infections and not in mixed infections. It has been found useless in infections complicated by bacillus coli, in old chronic sepsis cases, and in cases in which there are collections of pus in other organs. This serum of Galritchewski is no panacea for sepsis. The author has treated fourteen cases of puerperal sepsis, with three deaths, one from purulent peritonitis, one from septic endometritis, with septic endocarditis and infarctions of the kidneys and brain and septic changes in all the internal organs, the third from peritonitis. The author concludes that the serum is powerless against fully developed peritonitis of septic origin. He describes the cases successfully treated. The serum is useful to lower the temperature, but heart stimulants should be used. The kidney action is increased by the serum. The leukocytes are increased, while the red blood corpuscles are lessened in number.

Tuberculosis of the Neck of the Uterus.

Deletrez (Ann. de Gyn. et d'Obst.) goes over the history of a case of tuberculosis of the cervix uteri in a young woman. This is a very rare localization of tuberculosis. It is possible that this rarity is only apparent and that it would be more frequently recognized if the specimens after operation were more carefully examined for the tubercle bacillus. It is most frequent in the active period of sexual life, that is from the age of eighteen to forty years. Contagion of genital tuberculosis between husband and wife is rarely observed and generally among the very poor. Traumatism may create a point of least resistance but can have no other influence on localization of the bacillus in this region. Primary tuberculosis of the cervix is characterized by hyperplasia of the tissues, while ulceration is characteristic of the descending and secondary form. There are two important signs of primary cervical tuberculosis; one, the presence of numerous vegetations about the os that recall those of cancer. These are absent in the secondary form, in which there is rather a circular infiltration of the cervix. Amenorrhea is frequent in primary tuberculosis. There must be found no other localization of tuberculosis, a condition which is difficult to establish. Secondary, descending generation is certainly more frequent, and is a complication of pulmonary or peritoneal tuberculosis. Clinically, uterine tuberculosis simulates metritis accompanied by ectropion and erosions of the cervical mucous membrane, syphilitic chancre, or cancer of the cervix. There seems to be an antagonism between cancer and tuberculosis. Prognosis varies with the location of the lesion, its form, and its localization in other organs. Recurrence is frequent. Treatment consists of vaginal or abdominal hysterectomy. If there is little tubercular tissue amputation and cauterization of the cervix may be sufficient.

Use of a Ventral Bandage During Labor.

Vallee (Journal des Sciences Medicales de Lille) ascribes great assistance in the progress of labor to the firm, wide bandage placed about the abdomen early in labor, combined with the use of the horizontal position in bed from the first true labor pains. The author discovered the value of this method accidentally, but has made use of it with excellent results since then. It is found to expedite labor markedly. The uterus is so placed that the head is applied with the bag of waters in the center of the pelvis. Pains become regular and powerful, coming with increased rapidity, and labor is complete in a few hours. The bandage is so placed as to exercise a constant pressure on the uterus, and it forms a point of support for the contractions. No bad effects are found in the infant from the pressure exercised by the bandage. As the last stage begins and the pressure of the bandage is too high up, it should be assisted by pressure from the hands of an assistant, which follow down the body of the

child. The pain of the contractions is much lessened by these maneuvers, and the patient is much less fatigued than usual. The bag of waters is kept intact until the last moment, and it is due to its presence and normal dilating action that labor is hastened. The placenta is much flattened and is delivered rapidly, without much hemorrhage. The method has been used with success in all presentations of the fetus.

The Role of the Various Elements in the Development and Regeneration of Bone.

Macewen (British Medical Journal) states that the present inquiry has been undertaken with the view of obtaining data, chiefly by direct experiment, as to the role which the various elements play in the development and reproduction of bone. This communication deals with a part of the subject under two heads: (*a*) the potentiality of the periosteum as a factor in the production of bone; and (*b*) the regeneration of bone from proliferation of osseous tissue. The following is a brief summary of the paper:

(*a*) Potentiality of Periosteum as a Factor in Reproduction of Bone.—(1) To test this, a complete cylinder, constituting a portion of the shaft of a long bone, was removed, while the periosteum was preserved intact. This showed, ten weeks afterwards, an osseous defect, constituting a gap in the continuity of the shaft. (2) Periosteum free from osseous plaques was removed and transplanted. This was not followed by reproduction of bone, but by absorption of the periosteum. (3) Duhamel's silver-ring experiments are discussed, and the correctness of the deductions drawn therefrom are questioned.

In order to test whether the bone cells or the periosteum produces the bone which covers the silver rings, three experiments, each differing from the other, were performed, in which silver rings were placed on bone deprived from its periosteum, with the result that in each case the rings became covered with bone.

(*b*) The Regeneration of Bone from Proliferation of Osseous Tissue.—The periosteum is shown to be a limiting membrane controlling the osteoblasts, as illustrated in fractures, when the periosteum is intact and when it is torn. The production of callus is not inherently greater in the lower animals than in man—the amount of callus in both depends on the limitation of the periosteum and the amount of movement. (4) Direct experiment, showing that a long bone deprived of its periosteum continues to grow; (5) so also do the flat bones of the skull. (6) Bone may be made to grow in the midst of lacerated muscles by the mechanical distribution of osteoblasts. Observation. Rider's bone. Suggestion as to the production of myositis ossificans. (7) Can shavings of nude bone grow on being placed between muscles in a gap in the continuity of the shaft? Experiment and result seven weeks after show that not only do they grow but that they also proliferate to a very marked extent.

Is there any direct evidence to show that transplanted living bone actually grows and proliferates instead of forming, like blood-clot, a passive framework for the granulation tissue to penetrate, which framework will then become absorbed? There is, as may be illustrated (8) in an instance of bone grown in sponge filled with granulation tissue. (9) To test the osteogenic power of bone cells constituting the shaft of a long bone, they were grown inside of a glass tube. (10) Intrahuman transplantation of bone. Result 28 years later. Data are obtained from this experiment as to the growth of the humerus from the proximal and distal epiphyseal cartilages respectively. Also as to interstitial osseous increase—evidence of the increase in length of the diaphysis from the epiphyseal cartilage toward which the nutrient vessel runs.

Nursing During Acute Illnesses of the Mother.

Guidi (Riv. di Clin. Ped.) concludes from his observations extending over a period of thirty years that there are few acute diseases which prevent a mother from nursing her child and that it is wrong to separate the child from its mother. The patient should be watched carefully as to the effect it is having on her general condition, and the child should remain with her only when it is nursing. The mother should be nourished so as to keep up the supply of milk necessary for the infant. Stopping the nursing has a bad effect on the mother as well as on the child. There are unknown means of defense against contagion in the mammary gland and in the milk for the infant. Although the germs may pass into the milk they seem to have no unfavorable effect on the child. Clinical observation confirms experimental results. The bacteria lose their virulence, the milk causing its attenuation. The infant's organism may react by the formation of antitoxic substances which neutralize the products of the bacteria.

Review of Southern Medical Literature

Gaillard's Southern Medicine, March, 1908.

The Significance and Treatment of Uterine Hemorrhage.—Dr. W. E. Fitch says that whatever may be the correct interpretation of the pathological changes present in uterine hemorrhage the fact remains that the control of the bleeding is often a very difficult problem, especially in those cases unsuitable for surgical intervention, and the drugs which we have at our command for the control of hemorrhage often prove disappointingly unsatisfactory. Frequently cases come under observation in which the usual haemostatics and styptics such as ergot, hydrastis, hammemalis, gallic and tannic acids, persulphate of iron and other drugs of this type have been used without even the slightest sign of alleviating the hemorrhage flood. The cervix has been dilated, the endometrium curetted, and still the patient bleeds. In the past, in such cases, the woman had to give up her organs or bleed to death. Conservation in gynecology has been a stimulus to the broadening of therapeutic effort and has saved countless numbers of women from needless sacrifice of organs and other surgical mutilations that in so many instances failed to bring relief. We are sometimes compelled to remove a uterus because of our inability to check uterine hemorrhage permanently, as its recurrence is often to such an extent as to greatly endanger the life of the patient and when the organ has been extirpated the pathologist will open his eyes with surprise to see how comparatively trifling the organic changes will be. If uterine hemorrhage occurs after parturition or abortion we know the cause—faulty contraction of uterine muscular fibre. The open blood vessels gape through the atony of the muscle and we all know that any remedy which causes firm contraction of the uterine muscle will stop hemorrhage. A uterus infiltrated by small fibromyomata or which is chronically inflamed is an entirely different case. In such cases an abnormal growth of tissue is present, a growth which compresses the muscular fibres, hindering them from contracting with sufficient force to control arteriosclerotic ones which gape wide open in spite of muscular contractions, due to the rigid surrounding connective tissue. One can readily understand how such uteri become the seat of extensive hemorrhage and that this bleeding can only be controlled by a remedy which influences the vaso-motor nervous system directly, promptly counteracting the irritation that induces the dilitaiion of the capillary vessels. Such a remedy is the neutral phthalic acid salt of cotarnin. Cotarnin was discovered by Woeshler who obtained it by the exudation of the opium alkaloid narcetine by means of manganese dioxide and sulphuric acid.

Maryland Medical Journal, March, 1908.

The Prevention of Tuberculosis among School Children.—Dr. H. B. Jacobs says that all authorities upon the subject of tuberculosis are agreed upon the latency of the disease; that is, an infection of tuberculosis does not immediately manifest itself as do measles and scarlet fever and many other of the infectious diseases. With them we know that within a certain number of days after exposure the child or the adult will come down with the disease or he will not. If he pass this maximum number of days and does not fall sick then it is known that he has not taken the disease and is secure. With tuberculosis nothing like this happens. It is not possible to predict whether or not a person has become infected and if so when he will begun to show the disease. If he is infected the likelihood is that the disease will remain latent in the system, awaiting such time for its manifestation as shall be brought on by some undue over-exertion or fatigue, some debilitating cause induced by privation, dissipation, over-strain or illness. It is safe to say, perhaps, that in most cases of tuberculosis the infection occurred from one to ten years before the final manifestation. If this is so, as it undoubtedly is, the cases of consumption which begin to be so numerous after the fifteenth year of life must have had their inception, their infection, within the school days, and as consumption claims by far the largest share of victims between the ages of 15 and 30 it follows that by far the largest number of individuals are infected either while of an age for attendance upon school or in the years immediately thereafter. It is evident, therefore, that the ultimate solution of the problem of the eradication of tuberculosis rests largely with the coming generation, that is with the school children of today, and in solving this problem the mothers and guardians of children, the teachers and other authorities of schools must be the active factors. As tuberculosis is essentially a disease of poverty and ignorance, it is too much to expect that parents in such conditions can give instruction or care to their children at all commensurate in value to the instruction and care possible in the school. This may seem to teachers a large responsibility, but surely it is a responsibility worthy of their highest and most devoted efforts. When

they recall that one out of every ten of their children is likely to die of tuberculosis within the next 15 years does it not stir every instinct within them to make all efforts possible to protect and save this tithe of the bright happy lives whom they see sitting before them daily? There are many practical ways in which the school authorities and the teachers can make effective the hope which the author has expressed that the schools will become forceful agents in the great work.

Nashville Journal of Medicine and Sugery, Murch, 1908.

La Grippe.—Dr. S. Henderson believes its chief symptoms are due to catarrh of the respiratory and digestive tract, with profound muscular and nervous prostration; it is nearly always epidemic, its most common and one of its most dangerous complications is pneumonia, and there are no special anatomical lesions that characterize the disease. In nearly all cases we have a bronchial catarrh, at which we are not much alarmed, but when it extends to the capillary tubes, producing a broncho-pneumonia, we have a very serious complication; when the temperature drops to normal, and very often it falls below, one finds profound prostration with little or no disposition to mental activity or muscular exertion, and this condition, complicated with pneumonia, carditis, perineuritis, otitis, nephritis, etc., is not to be hoped for, the author believes he is safe in saying that all fatalities are due to complications. During the epidemic of 1580 nine thousand persons are said to have died of the disease in Rome, but nothing is said of the complications that might have caused the fatality. You may think the author regards the disease of but little consequence, but not so when you consider the complications and sequelae of la grippe, you have a very serious matter to deal with, for but few epidemics are more to be dreaded, for it leaves behind it an influence long to be felt after its disappearance. Every case does not furnish the same train of symptoms, but the disease always attacks the mucous membrane, hence you find the watery eyes, sneezing and sore throat with cough, marked degree of lassitude, loss of strength, the skin ts soft, pulse weak, tongue white and coated, aching pains in the back and limbs, often there is disturbance of the digestive organs, loss of appetite, nausea and vomiting or diarrhœa, but these symptoms subside in three or four days, all but the cough and prostration. To relieve the pain and distress at the beginning, give opium in some form, either morphine or dover's powder and acetanilid, and let the patient get quiet and more comfortable before giving a murcurial purge which will require assistance in six or eight hours of castor oil or salts; and as the pain and distressing feeling is almost certain to return when the effect of the first anodyne is worn off the author gives a prescription containing opium, digitalis, and syrup of tolu to be repeated at stated intervals and the different symptoms as to what it may be complicated with must be treated respectively.

The Texas Medical News, January, 1908.

The Toxemia of Pregnancy.—Dr. J. W. Boueland says that the present state of our knowledge would lead us to the conclusion that the toxemia of pregnancy is due to the accumulation in the blood of unoxidized substances which will result from hepatic insufficiency When from any cause metabolism in the liver is interfered with, nitrogenous substances instead of being completely converted into urea and uric acid, which represent the normal products of proteid waste, are changed into keratinin, indican, lensin, tyrosin, ammonia, etc. Williams states that the normal excretion of nitrogen in the form of ammonia is from 3 to 5 per cent. of the total nitrogen excreted, while in the pernicious vomiting of pregnancy this ratio is increased to 30 to 46 per cent. Hence large quantities of unorganized nitrogen would be found which would not appear in the ordinary tests for urea. These substances are irritating to the liver and still further interfere with its function. Add to this an increase in the proteid intake by excessive eating, particularly of a nitrogenous diet, and the burden on the liver is greater than it can bear. In many cases, no doubt, nature helps the nitrogenous balance by increased elimination to safeguard the patient against excessive accumulation of toxine. All grades of disorder from slight fatty degeneration to the narcotic changes found in acute yellow atrophy may be found. The kidney changes are regarded as secondary by the more recent investigators. The lesions consist of fatty infiltration without inflammation, although in some cases inflammatory changes may be present. As illustrative of the fact that the kidney lesions are not primary, Stones states that in 10 per cent. of the cases of eclampsia albuminuria does not precede the attack and that albuminuria is sometimes one of the last signs. Again albuminuria is not a reliable sign, as it is found in a large percentage of normal pregnancies. Gravdin states that as a rule toxemia is least likely to occur in those subjects in whom albuminuria exists in

moderate amount, while, on the other hand, violent toxemia frequently occurs in subjects in whose urine albumin is absent or in trifling amounts alone. One hundred cases reported by Gerster showed no albuminuria previously.

Virginia Medical Semi-Monthly, March 13, 1908.

Office Treatment of Gynecological Cases.—Dr. G. Baughman believes that the class of inflammatory cases that respond more readily to office treatment are those that have recovered from the acute stage with adhesions, enlarged uterus, swollen tubes, tender ovaries and thickened adnexa. The author's method of treating these cases are by massage, local applications of iodine, silver solutions of some sort, ichythol tampons and douches. The massage is the most important. A well lubricated finger or fingers are introduced in the vagina to steady the uterus and appendages while the abdominal hand massages. After the uterus has been manipulated by pressing the abdominal hand well down behind the uterus, trying to break up the adhesions that are holding it in Douglas' pouch, the tubes are stroked toward the uterus. The treatment is finished by some astringent or absorbent application to the cervix or cervical canal and an ichythol glycerine tampon. This office treatment is given once or twice a week. The patient is required to take at least one douche a day in the recumbent position at home and is instructed how to insert ichythol glycerine tampons at home. Petrogen and iodine applications are applied to the abdomen. Sometimes this treatment does not bring about results but it is astonishing how much good conscientious and persistent treatment will accomplish in most of these cases. The day of the pessary is by no means over. There are certain cases where a tear has not been repaired after labor. Often these women decline surgical interference. Should they be allowed to suffer for want of a properly adjusted pessary? It is needless to say that a fixed uterus is more than useless. The author is fond of using a tampon as a pessary.

New Orleans Medical and Surgical Journal March, 1908.

Epileptics in Schools of all Grades, Universities Included—Dr. E. M. Dupaquier says that according to the authors on epileptic character is as follows: Its essential feature is exaggerated excitability giving rise to sudden changes of emotion and to impulsions as violent as they are sudden. The young epileptic is taciturn, selfish, spiteful, irrascible, stubborn, quarrelsome, dissembling; he weeps and laughs on the least provocation, lacks coherency in his conduct and thoughts; he delights in destruction, loves to hurt, seeks to torture animals as well as his own chums. Perpetually in motion, he is capricious; as a rule, his presence at home is intolerable; he disturbs the quiet and happiness of the family circle. To accept this picture as pathognomonic is absurd. That a child who has epilepsy frequently shows the disposition referred to as epileptic character is granted. But how many children who are simply neurotics and not at all epileptics show such, if not all of that very same disposition? Here is the point: Instability in mind and body, neuropathy, epilepsy are branches of the same family tree. Not two branches of the tree are alike. While they co-exist on the same ground in a bunch, they differ; they are not identical. So it is with instability, neuropathy and epilepsy: while related, and possibly co-existing in the same individual, they are by no means identical, they must be separated and recognized each in its nature. In other words a child is not epileptic because he is unstable or neuropathic. He must have some sign of paroxysmal epilepsy in some of its varieties to be called epileptic. If we were to accept the ideas of certain pedagogues we would too often make the serious mistake of branding as epileptics a very large number of irrascible and unruly children

The criticism herein expressed of the current ideas regarding the epileptic character can be summed up in the following words: instead of using the term epileptic character as a portent of epilepsy, it were better for the sake of clearness and distinction to express it in this manner, viz: disposition of children who have epilepsy.

The Southern Practitioner, March, 1908.

Melancholia of Involution.—Dr. J. W. Stevens says that true melancholia is a disease of involution, and is characterized by painful emotional depression with apprehensive hopeless despondency, self-accusatory, somatic, and other delusions of a depressing character, distressing or terrifying illusions, suicidal tendencies, good memory, clear consciousness, correct orientation, an absence of retardation, a tedious course, and a poor prognosis. Because of the ever-present danger of suicide, treatment should not be undertaken outside of an institution. Melancholia furnishes more suicides than all other forms of alienation combined and an absolutely unremitting supervision should be maintained over these patients both night and day to prevent self injury,

Attempts at suicide, though often planned with great care and deliberation, are likewise ofttimes the result of sudden impulse in the presence of a favorable opportunity, a point to be ever borne in mind in instructing the nurse and relatives. Though generally very much more dangerous to themselves than others, yet in many instances these patients have killed their loved ones to save them from disgrace, tortures, or sufferings which the patient believes he has brought upon them. Of therapeutic measures, prolonged rest in bed over a period of weeks and months, with occasional breaks, abundant nourishment, massage, and the hot and cold packs to control of restlessness and secure sleep, gives the best results. The regular and prolonged administration of opium to control the depression, a treatment sanctioned and highly recommended by many authorities, certainly does often afford striking relief, but that it at all cuts short the duration of the disease is very improbable. On the other hand, its regular administration, accompanied as it will be by a tying up of the secretions and an interference with other functions already much impaired, seems to render it an agent of evil rather than good, and to probably diminish the patient's already poor chances for recovery. The possibility of habutation is of course another great danger. It may sometimes be administered without the patients knowing what he is taking, which will lessen the chances for addiction. When all hope of recovery is past there can be no objection to the use of the drug if it affords relief, and in other cases not yet hopeless its temporary administration to alleviate especially acute distress is justifiable.

Virginia Medical Semi-Monthly, March 27, 1908.

The Use and Abuse of Drugs.—Dr. J. T. Graham believes that a very common abuse of drugs, especially in the last ten years, is the use of faulty and useless combinations. If one takes the time to look over the preparations of the large drug houses one is surprised at the large number of combinations of remedies whose physiological effects are either opposed to each other or in no way assist the action of the main part of the prescription; for example, belladonna, a drug whose action begins within a few minutes after its administration and dries up secretions and paralyzes the involentary muscles, has gotten into numerous laxative and purgative pills whose action is not completed for twelve or eighteen hours after its administration. It is said that belladonna prevents the griping of the purgatives with which it is combined. This is an assertion contrary to the known physiological effect of the drug as compared with the time it takes for the two remedies to produce their effects, that cannot be proven. It is a well acknowledged fact that nervous diseases are on the increase. We have in our drug stores a multiplicity of remedies called nerve tonics which were not known to the profession a generation ago. The cause is the abuse of food as well as the abuse of drugs. Nature has abundantly supplied in all our food products all the elements that are needed for the human body, but in the last few years the phosphates, the most important element of food for the nervous system and also for the bone structure, have been taken out of the wheat in the new process of milling. The demand for white flour has resulted in the miller giving us starch, while the phosphates and gluten are fed to horses and hogs. Thus sacrificing nutrition for whiteness with baneful results that the growing generation have a badly developed skeleton, poorly nourished brain, nerves, and decaying teeth. There is an attempt to supply the demand for nerve food in the multiplicity of drugs, until we have an endless lot of phosphates, hypophosphates and phosphorus preparations ad infinitum, and oftentimes ad nauseum to supply what nature has given us, but man has deprived us of.

Texas Medical Journal, March, 1908.

Chronic Intestinal Auto-Intoxication.—Dr. H. L. Bibb after reviewing the various symptoms and conditions dependent on chronic intestinal auto-intoxication says that it would appear that the diagnosis of this disease is beset with many difficulties, but these difficulties are more seeming than real; for when it cannot be made by direct examination, it can almost invariably be made by exclusion. It must be remembered that indican is generally present in the urine, in increased quantity in Addison's disease, in cholera, carcinoma of the liver, central and puerperal disease of the nervous system, typhoid fever, dysentery, carcinoma of the stomach, ileus, acute and subacute chronic gastritis, acute and chronic peritonitis, empyema, putrid bronchitis, gangrene of the lung, or in short, in any condition (Von Jaksch) where albuminous putrefaction is progressing, actively, in some part of the system. Intestinal disorders, Rigg's disease and indicanuria are the three leading symptoms of chronic intestinal auto-intoxication and the author believes that a diagnosis based upon these three symptoms would be well founded and correct. In the treatment of chronic intestinal auto-infection it is absolutely neces-

sary to put the mouth and stomach in a good condition; to withdraw, at least temporarily, all albuminous food; to clean out and disinfect the alimentary tract; to prescribe gastric and intestinal tonics, and to insist upon proper food, in suitable quantities, at regular hours, that has been properly prepared and thoroughly masticated. The use of wines, coffee, tea, condiments and tobacco, and the use of fluids, in excess, during meals, should be interdicted. Oftentimes a change of diet and habits will be all that many cases will require, provided their mouths are in condition to properly masticate their food. A pill containing two grains and one-half each of blue mass and calomel, to be followed in ten or twelve hours by an ounce of castor oil, will be beneficial, at the beginning of treatment, in most cases, whatever may be the condition of the stomach and intestines. As an aid to digestion a capsule containing one-fourth grain of ext. of nux vomica and two and one-half grains each of diastase and pancreatin, immediately after each meal, will benefit many. Constipated cases will require aloes strychnine and belladonna associated with either the galvanic or faradic or high frequency current. Where there is gastroptosis, motor insufficiency, or colitis mucosa gastric and intestinal lavage with either static electricity or the faradic or high frequency current will be of signal service. Salol is a safe and an efficient intestinal antiseptic, when given after meals, and, where there is diarrhœa, will usually be all that is required to correct that condition in the majority of cases needing it.

The American Practitioner and News, March, 1908.

Surgery of the Thorax.—Dr. A. D. Wilmoth says since MacEwen has proven that collapse of the lung will not take place if the patient is placed with the side down that is to be operated on, we invade the pleural cavity more readily than ever was dreamed of by surgeons only a few years ago. In those cases where the cavity fills the second time an incision should be made and permanent drainage established. In children the resection of one inch of rib that has had the periosteum pushed off will do no harm, as the rib will be reformed in a short time. This gives ample room for drainage, while in older subjects from one to three or four may be resected to give room for ample drain and allow the sack to close; usually two will be sufficient. Through the opening that is made a rubber drain may be placed, or what is better if tube is used, is a gutta percha tracheotomy tube maintained in place by adhesive strips. There is a strong tendency at this time to get away from tube drains altogether in those requiring much drainage; first the danger of the tube getting into the cavity, next infection in the cavity through the tube, and the accumulation of pus in the cavity up to the level of the tube has caused many to discard it and use gauze instead; by this means keeping the cavity dry at all times. In those cases having a large cavity the surgeon can certainly get better results from thorough opening to gauze drain than by any form of tube; such packing should be loose enough to allow the pleura to fall together, for it is by this means only that we hope to permanently cure the patient. The question of washing out the cavity often comes up at the time of the operation; as a rule, this should not be done, for in most instances we are not sure whether we have an opening into the bronchi or not. If irrigation is used at all, it should be nothing more than normal saline, boric acid, or weak permanganate solution.

Atlanta Journal-Record of Medicine, March, 1908.

Adhesive Plaster for the Cure of Certain External Diseases and Lesions.—Dr. M. B. Hutchins believes that the most striking results of the use of the adhesive plaster method have been in the treatment of boils and subcutaneous abscesses. In case of boils, the patient usually appears at the time when the entrance of infection is a break in the skin of perhaps one-eighth inch or less, and the surrounding tissue in the maximum stage of tension and pain; necrosis has just begun to show in the formation of a core, and liquifaction is not initiated. The majority of these lesions occur on the back of men's necks, often too high to dress easily. Such of the "core" as is removable is picked out, no incision or none more than the diameter of the core is made. A solution of 95 per cent. carbolic acid is swabbed in and the whole area is then covered with adhesive plaster. This dressing prevents crusting and permits enough outflow from beneath its edges, apparently increases the serous flow and phagocytosis, suggesting somewhat the Bier theory. The dressings are changed when soiled. A poultice made with a 2 or 3 per cent. carbolic acid solution may be used at night if preferred, the principle being much the same. At each change of the dressing loose parts of the core are removed and carbolic acid again swabbed in, never followed by alcohol. The phenol destroys many virulent cocci and hastens necrosis of dying tissue. As the dead tissue decreases

by liquifaction and discharge, the serous flow increases and granulations of giant size rapidly fill the cavity. While the discharge is very free, a small pad of cotton is first applied, then the adhesive plaster to cover the whole area. This to prevent too much leakage from beneath the adhesive plaster and its annoyance to the patient. When the big soft granulations get up to the skin level the constant presence of the plaster may continue their growth to the formation of a hypertrophic scar. A dry dressing may best be employed at least part of the time at this stage. One of the greatest advantages of the plaster method lies in its closing the infection sufficiently to prevent the usual "crop" of boils. In practically 100 per cent. of cases the author feels that he can assure the patient that his boils will end with those he brings on his first visit. A last advantage is that having the slightest incision, or opening the scar is often difficult to find.

Book Notices.

Practical Fever Nursing. By Edward C. Register, M. D., Professor of the Practice of Medicine in the North Carolina Medical College. Octavo volume of 352 pages. Illustrated. Philadelphia and London: W. B. Saunders Company, 1907. Cloth, $2.50, net.

This work, as the title indicates, contains much practical information and should prove invaluable to the nurse. It also contains much regarding the symptomatology, diagnosis and treatment of the specific fevers which is worthy of careful study by the physician. The first section of the book is given up to the discussion of general considerations under which the author discusses the relation existing between nurse and patient and between nurse and physician. The subjects of the examination of the pulse and respiration, the proper use of the clinical thermometer, the administration of hypodermic injections, hypodermoclysis, catheterization, rectal feeding and the methods in use for the reduction of temperature are discussed with great thoroughness, and explicit directions are given for their proper employment. This is followed by a section on the prevention of fevers which contains much practical information concerning the use of disinfection and sterilizations and their value in preventing the spread of the infectious diseases. The infectious fevers are then considered separately with regard to their etiology, morbid anatomy, symptomatology, diagnosis, prognosis and treatment. The etiology and morbid anatomy are discussed with clearness and brevity, particular attention being devoted to symptomatology and treatment. The characteristics of the temperature curve and the pulse in the various infectious fevers are discussed at length as well as such subjects as perforation and hemorrhage in typhoid, the symptoms of which are apt to first meet with notice at the hands of the nurse and the favorable outcome of which depends to a large extent upon the rapidity with which the nurse recognizes and correctly interprets these symptoms. The section devoted to typhoid fever is worthy of special mention. This is one of the few books which impresses upon the nurse the fact that the accurate registration of abnormal temperature is fully as important as that of fever temperatures. This is a very important point and one which in the past has not met with the notice which it deserves. The work is thoroughly practical in every point and the author shows an unusually comprehensive knowledge of the subject matter with which he deals.—Detroit Medical Journal.

Diseases of the Nose, Throat and Ear. Medical and Surgical. By William Lincoln Ballenger, M. D., Professor of Otology, Rhinology, and Laryngology, College of Physicians and Surgeons, of Chicago University of Illinois. Octavo, 896 pages, with 467 engravings and 16 plates. Cloth, $5.50 net. Lea & Febiger, Publishers, Philadelphia and New York, 1908.

This new work is notable, in the first place, for its unusual breadth, as it covers the whole of its three subjects, instead of dealing with the nose and throat fully and with the ear only fractionally, which has been the general custom heretofore. This is a frank recognition of the fact that the upper respiratory tract and the ear are so closely related pathologically that they can be most advantageously considered in juxtaposition. In still another and equally important sense the book is very comprehensive, for it deals fully with the surgical as well as the medical treatment of these regions, and of the accessory sinuses also. As the author has been generous in including the whole of these cognate specialties, so has he been disposed toward his book itself, for he has lavishly illustrated it with original drawings, nearly every one of the five hundred engravings being new and specially prepared for this work. Though liberal in his pictorial department as well as his text, he has been jealous of his readers' time, and has avoided superfluous words and cuts alike. Everything admitted to his pages tells its story, and nothing could be omitted without loss. Witness his many

series of engravings illustrating as many operations, and depicting their successive steps, so that the reader has a clinic before him in these pages. The same fullness is true of his medical treatment, which forms the larger share of the daily practice in these specialties. His book is also cosmopolitan, for it represents the best knowledge of the world. As a single step in its preparation the author gathered no less than about three thousand monographs by corresponding with leading specialists in America and Europe. The enormous labor made fruitful in this volume is certain of wide recognition in this country, where the diseases grouped in its title are especially rife owing to climatic and other causes. The author has written for students, as well as for general practitioners and specialists.

An Aid to Materia Medica. By Robt. H. M. Dawbarn, M. D., Professor of Surgery and of Surgical Anatomy, New York Polyclinic Medical School; Professor of Surgery, Fordham Medical College; Visiting Surgeon to the City Hospital, New York. Fourth Edition, Revised and Enlarged by Edw. V. Delphey, M.D. New York: The MacMillan Company, 1907. Price $1.75 net.

This small volume presents, in brief space and tabular form, all the drugs and preparations recognized by the present Pharmacopœia, with their doses expressed in both apothecaries' and metric systems: also the exact composition and strength of all preparations. Synonyms, pronunciation, and in the case of drugs of vegetable origin, the derivation and habitat are given. A table of solubilities of chemicals in water and alcohol is also included. It is an accurate and reliable work, thoroughly up-to-date, and in every way most useful to both the student and practitioner.

Practical Life Insurance Examinations with a Chapter on the Insurance of Substandard Lives. By Murray Elliott Ramsey; M. D. J. B. Lippincott Company, Philadelphia and London. 1908.

The medical examiner for life insurance companies occupies an important and responsible position in the medical field today. It is essential that the examiner should possess special knowledge and have qualifications rendering him capable of meeting the requirements put upon him by his position. This volume by Dr. Ramsey is the fruit of long experience and it supplies a genuine need. It treats the subject in a thoroughly practical manner, only those things being considered which are relevant to the work of an examiner. Particular attention is given to the physical diagnosis and prognosis of diseases of the chest and abdomen for these regions constitute the seat of the organs which enter most vitally into the welfare of the insurance company. Every doctor who examines for life insurance companies should possess this book.

Glimpses of Medical Europe. By Ralph L. Thompson, M. D., Professor of Pathology, St. Louis University School of Medicine. Illustrated. J. B. Lippincott Company, Philadelphia and London. 1908.

A most attraciively written book by an American doctor who has spent considerable time in the great medical universities and hospitals of the Old Country. He does not pretend to describe anything accurately and although the author disclaims any intention of having intended to write a book at the beginning he has nevertheless succeeded in giving those who may find interest in such things a most charming account of those famous institutions of which we hear so much. Dittle bits of scenery and character sketches contribute to hold the readers attention. The volume contains a great many very fine illustrations of men, hospitals and universities. While it makes no claim to being a guide-book it nevertheless would direct the prospective clinic-seeker to many places which he would not otherwise find. The publishers have added to the many attractive features of the volume by producing a most unique binding.

Nursing the Insane. By Clara Barrus, M. D., Woman Assistant Physician to the Middletown State Homeopathic Hospital, Middletown, N. Y. The MacMillan Company, New York. 1908.

To deal with those unfortunate individuals whose care is such a mighty problem, not only to the State, but for those who must come into more intimate contact with them, requires exceptional qualities of mind and character. The training of nurses and attendants for these patients must cover a much wider field than is comprised in the course of the ordinary trained nurse. The nurse for the insane must be prepared to care for the ordinary medical and surgical diseases of the patients, in addition to their mental ailments. She must safe-guard them from injuring themselves or others, must possess many of the qualities that make a good teacher. since a part of her duty is to help correct faults in early training and development and to encourage and train to correct and useful habits and proper behavior; she has also to employ and entertain her patients, under the direction of the medical officers; and to her is intrusted that almost constant association and

companionship which, if sympathetic and judicious, is one of the most potent means of restoring her charges to mental health. This book is written by one who has had a long experience of fifteen years with this class of patients. The author's aim has been to furnish special instructions and suggestions to students and nurses who are engaged in caring for the insane. The book is filled with matter of great practical importance.

Nervous and Mental Diseases for Students and Practitioners. By Charles S. Potts, M. D., Professor of Neurology in the Medico-Chirugical College of Philadelphia; Neurologist to the Philadelphia Hospital. Second Edition, revised and enlarged. Illustrated. Lea & Febiger, Philadelphia and New York. 1908.

Potts' Manual of Nervous and Mental Diseases is not only well known, but its excellence has been universally acknowledged. This new revised edition has been considerably enlarged by the incorporation of many of the more recent advances in the study of nervous diseases. Also among the other important additions is a scheme for the examination of patients and a number of new illustrations and plates which will be very useful to the student. It is an excellent book for both the student and practitioner.

International Clinics, a Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Permatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene and Other Topics of Interest to Students and Practitioners. By Leading Members of the Medical Profession Throughout the World. Edited by W. T. Longcope, M. D., Philadelphia, U. S. A. Volume I. Eighteenth Series, 1908. J. B. Lippincott Company, Philadelphia and London.

The International Clinics are conceded to be one of the very best medical periodicals published in America. It contains within the pages of every issue the very best work, not only of American physicians, teachers and scientists, but also of those in foreign countries. The articles in this latest volume are quite up to the standard set by the editors of the Clinics.

Miscellaneous.

Dr. Newton Craig.

Dr. Newton Craig, of New York, has located in Charlotte to practice his specialty of the eye, ear, nose and throat. His office is in the Piedmont Building, South Tryon St.

Plague in Guayaquil.

There have been forty-eight new cases of bubonic plague in the city of Guayaquil since April 22nd. During the entire month of April there were one hundred and thirty deaths from this disease and sixteen deaths from yellow fever.

Yellow Fever in Santiago.

A case of yellow fever appeared in Santiago Province on May 2nd. The victim is a Spanish immigrant, who was stricken with the disease in the Daiqueri hills, about fifteen miles from the city of Santiago.

St. Luke's Hospital at Chattanooga, Tenn., has created a free dispensary, under the management of the First Methodist Church. A corps of physicians will give their services, and trained nurses will also be in attendance.

The hospital will be located at 211 William Street. Plans for remodeling the building for this special purpose have been completed. Everything connected with the institution will be modern in all respects, with separate waiting rooms for white and colored patients, and large, well lighted rooms for the treatment of cases. The dispensary will be open two hours each week day, from 12 to 2 in the afternoon. The medical and surgical work will be under the direction of Dr. Raymond Wallace.

The dispensary will be maintained for the treatment of such patients as cannot afford to pay for the services of a physician.

NEW SUBSCRIBERS

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TABLE OF CONTENTS FOR MAY, 1908.

Original Communications.

Recent Progress in the Study of Typhoid Fever, by Lewellys F. Barker, M. D., Baltimore, Md.,.. 246

The Little Things in Obstetrics, by Dr. J. T. Graham, Wytheville, Va.,... 252

The New Currents in the Treatment of Nervous Diseases, by Chas. M. Hazen, M. D., Richmond, Va.,..... 254

Medical Morals and Manners, by Hubert Ashley Royster, A. B., M. D., Raleigh, N. C.,..... 255

Tetanus, by Charles T. Harper, M. D., Wilmington, N. C.,..... 259

Epilepsy and its Treatment, by William Francis Drewry, M. D., Petersburg, Va.,..... 261

Notes of Trip to Richmond, by Dr. J. W. Long, Greensboro, N. C.,..... 267

Editorial.

The Fifty-Fifth Annual Meeting of the Medical Society of the State of North Carolina, ... 269

Annual Meeting of Association of Surgeons of Southern Railway,..... 271

Special from North Carolina to Chicago Meeting of A. M. A.,..... 271

The Florida State Medical Association, ... 272

Dr. Walton's New Hospital 272

Transmissibility of Bovine Tuberculosis,..... 273

Another Operation for Congenital Dislocation of the Hip-Joint,..... 274

Do Not Neglect the Fundamentals,..... 275

Journals Wanted,..... 276

Georgia Medical Association,..... 276

Tennessee Medical Association,..... 276

South Carolina Medical Association,..... 276

Alabama Medical Association,..... 277

North Carolina Medical College Closes,..... 279

Things Ought Not so to Be, 279

Delegates to A. M. A. from North Carolina,..... 280

Editorial News Items,..... 280

Marriages, ... 286

Deaths, ... 286

Abstracts.

Twelve Cases of Mastitis Treated by Suction Apparatus, ... 288

Injections of Air for the Relief of Pain,..... 288

Ankylostomia Anemia in Children,..... 288

Relations of Typhoid and Paratyphoid to the Bile Ducts,..... 289

The Emptying of the Stomach, the Separation of Solids and Fluids, the Behavior of Fat,..... ... 289

The Necessity of Removing the Appendix During Every Gynecologic Laparotomy,... 289

Epidemic Pemphigus of the New-Born,. 289

Continuous Generalized Spasms and Acute Encephalitis of Infants,..... 289

The Syndrome Produced by a Lesion of the Optic Thalamus,..... 290

Pyocyanase as a Prophylactic and Remedial Measure in Certain Infectious Diseases,.. 290

Diabetes Mellitus,..... 291

Acute Tuberculous Fever, 291

The Treatment of Acute Gonorrhœa, ... 291

Membranous Rhinitis,..... 292

Acute Poliomyelitis,..... 292

Avian and Human Tuberculosis,..... 292

The Cause, Pathology, and Treatment of Chronic Rheumatism,..... 293

The Treatment of Membranous Colitis, ... 293

Cancer of the Cervix and Pregnancy,..... 294

Length of Time in Bed After Physiological Labor, 295

Treatment of Pruritus,.... 295

Rectal Feeding,..... 295

Pericarditis,..... 295

The Cutaneous Tuberculin Test,..... 296

Chronic Middle Ear Suppuration,..... 296

The Sanatorium Treatment of Active Insanity by Rest in Bed in the Open Air, 296

Krause Skin Flaps in Leg Ulcers, ... 297

Chloroform Shock—Lessening by Transfusion,..... 297

Chronic Articular Rheumatism and Arthritis Deformans,..... 298

Intestinal Polyposis and the Relation of this Condition to Carcinomatous Degeneration,..... 298

The Symptoms and Aetiology of Mania,..... 299

Prolonged Retention of the Ovum after Abortion,.... 299

The Treatment of Serous Effusions,..... 299

Empyema in Children 300

Pathological Changes Produced by Alcohol,..... 300

Signs of Visceral Disease, 301

Theory and Practice of Serum Diagnosis in Syphilis 302

Deaths Under Anaesthetics 302

Laryngostomy, ... 303

Arterial Hypertension and Eclamptic Seizures,..... 303

The Lower Segment of the Uterus,..... 304

Ovarian Teratomata, ... 304

Serum Treatment of Puerperal Sepsis,..... 305

Tuberculosis of the Neck of the Uterus,..... ... 305

Use of a Ventral Bandage During Labor,..... 305

The Role of the Various Elements in the Development and Regeneration of Bone,..... 306

Nursing During Acute Illnesses of the Mother,.... 306

Review of Southern Medical Literature,. 307

Book Notices.

Practical Fever Nursing, by Edward C. Register, M. D., Charlotte, N. C.,.. 312

Diseases of the Nose, Throat and Ear. Medical and Surgical, by William Lincoln Ballenger, M. D.,... 313

An Aid to Materia Medica, by Robt. H. M. Dawborn, M. D., ... 313

Practical Life Insurance Examinations, by Murray Elliott Ramsey, M. D.,... 313

Glimpses of Medical Europe by Ralph L. Thompson, M. D.,..... 313

Nursing the Insane, by Clara Barrus, M. D., ... 313

Nervous and Mental Diseases for Students and Practitioners, by Charles S. Potts, M. D.,..... 314

International Clinics, edited by W. T. Longcope, M.D. 314

Dr. John S. Clifford, Charlotte, N. C.
Dr. F. O. Hawley, Charlotte. N. C.
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Sanitary Conditions In Cuba.

Dr. Doty, Health Officer of New York, upon his return from a trip to Cuba makes an exceedingly interesting report concerning the health conditions of the island and the excellent sanitary arrangements which prevail. He visited Mantanzas, Camaguey and Santiago, where he consulted with Dr. Thomaston, the United States Army Surgeon in charge, who represents Major Dean there. The sanitary conditions and health of the city and adjacent country were fine. While at Havana he arranged with Dr. Amesse, of the Public Health and Marine Hospital service, for the issue of certificates to passengers leaving Havana for New York. Certificates will not be issued to passengers who are bound to Southern

States. These passengers will be detained at quarantine and made to report to the Health Officer until the usual period of six days has elapsed from the time of leaving Havana. Perfect harmony prevails among the sanitary authorities, the Public Health and Marine Hospital Corps and the regular Army officials in Havana and throughout the island.

University of North Carolina School of Medicine.

Announcement is made that the graduating exercises of the University of North Carolina School of Medicine will be held in the University, May 21st, when thirteen young physicians will receive their diplomas. The address to the graduating class will be delivered by Dr. Geo. G. Thomas of Wilmington.

Guilford County Medical Society.

The members of the Guilford County Medical Society were the guests of the Greensboro Academy of Medicine at a delightful banquet at Hotel Clegg, on May 9th. Dr. H. H. Dodson served as toastmaster and toasts were reponded to as follows: "The Doctor and the Clergy," Rev. Father Vincent; "The Baby," Dr. W. J. Richardson; "The Doctor in Full Dress," Dr. H. T. Bahnson, Winston-Salem; "The Doctor's Wife," Dr. Anna Grove, of the State Normal and Industrial College; "Fads and Fancies of the Doctor," Dr. Chas. Roberson; "The Doctor as a Witness," Judge W. P. Bynum, Jr.; "The Doctor's Doctor," D. A. Stanton, High Point; "Professional Optimism," Dr. C. W. Moseley; "Practice Among the Highways and Hedges," Dr. C. S. Gilmer. All the talks were good and some of them were bright and witty.

Swann-McCarn.

Dr. Oscar Clarence McCarn of Blossburg, Ala., was married to Miss Margaret Almeda Swann, on May 6th. Miss Swann is from Cool Spring Township, Iredell county. She has been a professional nurse of much ability, nnd was for a time connected with a hospital in Birmingham, Ala., where she became acquainted with Dr. McCarn.

Reports as late as May 2nd. declare that the bubonic plague epidemic at La Guiara, Venezuela, is abating. It is said that the existence of the plague at Caracas is denied by officials. Communication is freely open between Caracas and Cuerto Cabello.

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J. S. TYREE, Chemist, Washington, D.C.

Sold His After-Birth.

A medical student was asked to take a Sunday-school class, which after some protest he consented to do. He got on very well with the questioning, but when it came to imparting knowledge he was a little lacking. He managed Abraham, Isaac and Jacob very well, but when he explained that Esau was a man who sold his afterbirth for a bottle of potash, the vicar hinted that it was time he was home and had his tea.—Medical Times.

Had a "Bargain Mother."

The arrival of twins to her mother was told to Ethel, the ten-year-old daughter.

"Oh, dear," said the little girl, "mamma has been getting bargains again."—The Doctor's Factotum.

The Local Treatment of Diphtheria.

Maclachlan (British Medical and Surgical Journal) extols the merits of the hourly application of a mixture of Liq. hydrag. perchloridi and glycerite of tannic acid in equal parts. He advises its use every hour, night and pay, until the membrane is gone, and then at intervals for a week or longer, until the swab test is negative. One illustrative case is detailed. [The stirring up

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of a case of diphtheria, smacks more of the Middle Age than of the year of grace, 1908. Abstr.]

Tuberculin Reactions.

Heinemann (Munchener Medizinische Wockenschrift) compares the results obtained by means of the conjunctival reaction and the method by inunction recently described by Moro. The patients tested by the former procedure were one hundred and forty-four in number, of which forty-eight were tuberculous, thirty-three suspected, and sixty-three not suspected. Of the first group, eight have negative reactions, of the second, eleven were the negative, and of the third, fifty-three. Of the nonreacting tuberculous persons, five were in the first stage of the disease, and three in the third stage. The author, therefore, concludes that the method may in some cases be unreliable as a diagnostic procedure. The inunction test was applied in sixty-six cases after a codjunctival test, and by itself in one hundred and eight other cases. The results obtained in this way led Heinemann to believe that in adults the inunction method is at least as useful as the eye reaction, while it has the advantage of not giving rise to undesirable consequences. In performing the conjunctival reaction cases of the conjunctivitis were encountered often lasting two weeks, while the patients were never annoyed in any way by the inunction. The preparation used for the latter purpose was a fifty per cent. ointment of old tuberculin in lamolin.

The Treatment of Endometritis by Irrigation and Drainage.

Dr. Augustin H. Goelet, of New York, presented a paper with this title at the meeting of the Tri-State Medical Association of the Carolinas and Virginia, held at Charlotte, N. C., February 18-19th, 1908. He says, "The fundamental principle in the treatment of endometritis, in whatever form encountered, is drainage,—drainage not only of the cavity of the endometrium but of the submucous glands as well. In conjunction therewith, irrigation to free the surface of debris and agglutinated secretion and thus assure cleanliness and free the orifices of the secreting gland ducts is essential."

He accomplishes this by means of a specially constructed double current uterine irrigator; small enough to permit introduction through the canal of the cervix without previous forcible dilatation. This is converted into an electrode by connecting it with the negative pole of the galvanic current which is continued in force with 10 m. of current throughout the irrigation. Thus negative electrolysis is made use of to facilitate the introduction of the irrigator and by relaxing the canal favors subsequent drainage. He maintains that the action of the current stimulates the glands to throw off pent-up secretion and facilitates removal of tenacious mucus that may block the orifices of the glands.

He believes that the curette, though sometimes required, is used far too often and unnecessarily in this condition, and that when curettage is employed it is to be regarded only as the initial step of the treatment, subsequent irrigation and drainage being necessary to effect a cure.—Medical Record.

Obesity Diets.

Sternberg (Deutsche medizin. Woch.) says that in carrying out courses of treatment for obesity the patients often suffer severely from hunger, and that the feeling of satiety after eating is essential to the sense of well being and capacity for work. It is desirable to add to the dietary something which will contribute to the feeling of repletion after eating without itself being digestible or nourishing. Such a substance is to be found in the ligamentum nuchæ. It is possible to prepare this in such a way as to be appetizing and applicable to many different culinary uses. The ligament is boiled until it has become perfectly soft, which requires a long time, and it is then passed several times through a chopping machine until it has been reduced to very fine particles. The material may be used to make croquettes, forcemeat for soups, and as a substitute for flour in many different egg dishes. One of the recipes recommended by the author is as follows: The chopped ligament as above is stirred with whipped cream and put into a buttered ramekin; a raw egg is added and the whole is baked in a dish containing hot water. Before serving, cheese is sprinkled over the top. Several other methods of using the material are given by the author, who says that it may also be advantageously employed in preparing starch-free dishes for diabetics.

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The Charlotte Medical Journal.

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Recent Experiments in the Treatment of Fractured Pattalae.

By Dr. Theodore Maddox, Physician and Surgeon, Secretary and Treasurer Union County Medical Society, Union, S. C.

In the colleges and literature of today we are advised to use silver wire in repairing fractures of the patella.

This instruction was followed faithfully until October 24, 1905, when I was called to see a patient, Lawrence Y., who had crawled beneath a linter gin.

On close examination, discovered that both patellae were severed, with one of them in two places. The sourrounding tissues were badly lascerated, and in the left knee joint the intervening cartilage was at least half torn away.

I had the patient removed to his home immediately. On arrival there I had the patient anesthetized and began work at once. I cleansed the parts and placed everything in readiness for the operation except the silver wire, I looked through my emergency bag, but nowhere could it be found. Cat gut was the only suture material at hand, so necessity forced me to use this.

Much to my surprise I had excellent results, and during the years following the operation I have made frequent inquiries regarding his condition, and have always received the same answer, "Everything all right doctor."

Inasmuch as his work is laborious and the permanent results of silver wire so uncertain, I began an investigation and endeavored to ascertain how it was that such good results were obtained in this case.

After long and careful consideration I have arrived at the following conclusions, viz:

That gut, either plain or chromicized, is the best suture material for operations on bone tissues.

That the gut is absorbed in from ten to twenty days, in either case giving the bone ample time to reunite and become self sustaining with the assistance of a suitable splint. This splint should, of course, hold the limb perfectly straight, and should be left in situ for at least the usual time, if not a longer period.

That there is no permanent foreign body left within the bone substance to produce degeneration by irritation.

That if the bone is reunited within 10 to 20 days sufficiently to hold itself, there can be no sound theory for leaving sutures in situ for a longer period.

That all of us know that a reunited bone is as strong, if not stronger at point of union.

That I have observed many refractures of the patella, and other boney tissue, where silver wire sutures were used, and have always noted the same necrsed appearance of the bone.

Malignant Growths.*

By Dr. W. A. Matthews, Hawkinsville, Ga.

I shall use the terms cancer and malignant growths synonymously, as referring to all abnormal conditions whose characteristic features are progression, diffusion or metastasis, with a tendency to recurrence without any attempt at classification.

The rapid increase of the disease is indeed alarming and calls for more vigorous efforts on the part of the profession as to its treatment. We should formulate and institute more effective prophylaxis, adopt the most scientific, as well as radical measures to effect cures, and in the hopeless cases, administer the most palliative remedies at our command for the benefit of those unfortunates who are doomed to such slow and horrible deaths.

Cancer is not a disease of the poor and poorly nourished, as shown by the condition of the English people. Their improvement has doubled within the last one hundred and fifty years; poverty is said to be one-half less, yet statistics show that the disease has increased four fold, while in Ireland where there has been no improvement in their manner of living for the last half century, it has not increased. It is also largely on the increase in parts of the United States, while among the savages it rarely ever if at all exists. This leads us to conclude that high living plays a part as an etiological factor.

From one to two per cent. more women die with cancer than men, which may be partly accounted for by the excessive prevalence of the disease occuring in the uterus, the cause of which will be referred to later.

For the object of this paper it matters little which is correct, the autocytic theory which ascribes the cancer process to a reversion of cells to their primitive amoebiform condition, after having thrown off the control of the nervous system, becoming quasi-independent autocytes, preying upon

*Read before the Ocmulgee Medical Association Hawkinsville, Ga., Jan. 21, 1908.

the adjacent healthy parts devouring them and appropriating their nutriment to their own growth, or whether the process be parasitic as claimed by Sanfilice of Italy, Plimer of England, Gaylord of Buffalo, N. Y., and others.

It is hoped that Pathologists and laboratory workers, who have done so much for the science of medicine, will soon be able to definitely settle the present mooted question of the etiology and true nature of malignant growths, which will aid materially in its scientific treatment.

Our efforts, however, to control and cure the disease need not be arrested while they are engaged in their important researches.

There are two points I wish to emphasize relative to this dreadful disease, that is so rapidly marching with its destructive forces against the lives of humanity. 1st. The importance of its early recognition. 2nd. The necessity of a united effort with greater harmony and more moral support from one class of physicians to another in its treatment.

Its early recognition depends greatly upon our knowledge of the exciting causes and mode of development as found in different parts of the body. In seeking the causes of cancer there are many apparently insignificant facts which are too often overlooked.

In all cases of malignant growths there is a precancerous stage, or a time at which the growth might be removed with absolutely no danger of recurrence; hence we must conclude that cancer is of local origin.

The question of heredity as an influential cause seems to be yet unsettled, but from the evidence at hand it undoubtedly enters largely as a causative factor.

Manochon in a study of heredity of cancer, found in twenty-three families sixty-nine cases of the disease; fifty-seven of which were of the stomach, and after citing numerous other cases, he concludes b saying that, "it appears that heredity in cancer should be no no longer doubtful."

Dr. Bovee in his address as chairman of section of Obseetricts and disease of women at the meeting of The American Medical Association at Atlantic City, June 1907, refers to three successive families afflicted with cancer, and again to a family of four sisters all of whom had the disease.

He also speaks of contagion as a causative factor and refers to a paper of A. Lathron Smith's entitled, "Is cancer contagious?" published in the International Journal of Surgery in 1896, where he offers many instances to show that the disease is conveyed from one person to another by means of a parasite called "Cancriamoeba Macroglossa."

There are instances where the disease seems to have been transferred from one person to another, and many cases where it has apparently been transfered from one part of the body to another by direct contact rather than metastasis.

It is an evident fact that, vulnerability of tissue acts as a strong causative factor. Dr. Hutchins says in the beginning of his paper on lesions predisposing to cancer, read before the State Medical Association of Georgia, in 1906, that, without some rort of stimulus or disturbance of cell relation, many of the lesions would never become malignant.

He goes on and points out some of the most common lesions such as warts, moles, freckles, scaly or horny patches, cracks, fissures, scars from burns, boils, carbuncles, injuries, etc., which after receiving slight injuries disturbing the balance of cell relations, develops into cancers of a most serious nature.

This is more strikingly evidenced in the fact of its frequent occurrence in the uterus, an organ that is constantly undergoing pronounced changes; and more especially that of the cervix which is most exposed to injury and irritation.

Since it is an accepted fact that, all malignant growths were at one time local conditions and might have been totally destroyed by appropriate measures, and in view of the more important fact that, the slightest irritation or injury may cause a loss of cell balance, or an absence of normal restraint, whereby the condition may rapidly develop into malignancy, and moreover that metastasis occurs very early in many types of the disease and when it has been permitted to take place there is at present no known means of cure; it behooves us to be constantly on the alert, keeping close watch over all conditions likely to develop into cancer and upon the least signs of such development institute effective measures for its eradication.

To suggest to our patients the removal of all lesions and growths not yet malignant would often prove of no avail, but upon the least evidence of the condition progressing towards malignancy thorough treatment should be instituted.

While much may be accomplished by a microscope in making an early diagnosis, or determining the malignancy of a tumor, and it should be used in the early stages of every suspicious case, yet microscopical findings should not be taken as conclusive, for often when the diagnosis can be definitely made by a clinician the chances of a cure is reduced to a minimum. Dr. Massey, while approving the use of the microscope as a means of diagnosis says that, in two cases

under his observation, one of a carcinoma and the other a sarcoma, the patients ultimately died of repeated recurrence in spite of the failure of skilled histologists to find microscopical evidence of a malignancy.

The clinical evidence should be carefully noted. Rapidity of growth is a marked evidence of the malignancy, yet the location of the neoplasm must be taken into consideration. It should also be carefully differentiated from inflammation due to infection, the latter being attended by more severe pain, which, contrary to the general impression, in the early stages of malignant growths there is noticeable absence of pain.

Age plays an important part in reaching a presumptive diagnosis.

If the patient is under thirty or forty a suspicious lump is not likely to be a cancer; yet as is said of the microscope, it should not be accepted as conclusive. There are many reported cases where malignant growths were the causative factors in the death of children. One under my own observation which I exhibited at a meeting of this association here about one year ago.

Primary malignant growths are rarely ever multiple as are benign tumors, and even in the early stage a malignant tumor is more fixed with nodulated edges, showing peripheral prolongation, while later in the stage the skin becomes attached to the neoplasm.

Benign tumors slip easily between the fingers, are separated from the skin and adjacent tissues and are encapsulated.

Every examination of tumor should be preceded by careful inquiry into the family history to ascertain if there is a hereditary tendency to cancer, also whether there ever was an injury of the parts in question that may be acting as a disturber of cell relation, or irritation likely to set up excessive cell pro-liferation.

In the examination of a tumor palpation is a procedure of very great importance; by it we can determine its connection with surrounding tissues, whether encapsulated or not. whether solid or cystic, its proximity to nearby important blood vessels by noting carefully the pulsation, as well as the more important fact as to whether the malignant process is still confined to its local position or diffused beyond it effecting the surrounding glands draining the parts.

In spite of our incomplete knowledge of the exact cell relation of cancer, or the inherent etiological factor in its production, as well as being constantly confronted by dismal failure to cure and inability to prevent recurrences, we should not be discouraged, for the improvement along this line, since more modern methods have been adopted is indeed gratifying. It would be little short of criminal neglect for us to fold our hands and wait for some wonderful specific that will be infallible in assisting the vital forces to throw off this disease.

Our efforts should be constant and untiring. We should urge upon our patients the same importance of the necessity of frequent inspection of a simple lesion where there is a probability of malignancy as we do upon the pregnant woman of the importance of frequent examinations of her urine.

We should not be content with the fact that, many of such lesions never terminate in cancerous conditions.

The most unpardonable sin committed by the profession in this respect is, that of telling a patient that the menopause is characterized by irregular uterine hemorrhage, or menorrhagia and profused leucorrhea, when such is entirely foreign to a healthy physiological condition at that time of a woman's life.

A lacerated cervix or other abnormal conditions of the pelvic organs, especially when attended by irregular menstruation between the ages of forty and fifty furnishes ample cause for a physician to insist upon frequent and regular examinations, whereby cancer may be detected early and the patient's life saved.

This class of cancer has become so prevalent and in the advanced stage the chances of a cure are so utterly hopeless that I desire to especially impress the importance of its early recognition. As I stated in the beginning there is a crying necessity for a more united effort with greater harmony and more normal support from one class of physicians to another in the treatment of these diseases. The classes referred to are the Surgeon, the X-Ray workers and the Therapeutists. In the past there has been a deplorable lack of harmony between these classes. The surgeon holding out to the patient, that the X-Ray is a myth and that drugs are taken without avail; the therapeutist claiming that the knife is more dangerous than the disease, and the X-Ray is in the extreme fanatical; while the X-Rayist, being enthused over a succession of cures, loses sight of the good of conservative surgery and the efficacy of internal medication.

To accomplish the results that is reasonably expected of us as a profession, we must unite these forces and work harmoniously for the best results to the greatest number, upholding each other in our honest attempts to affect cures.

Refering to surgery Halstead says, in speaking of operations of the breast, that while delays are dangerous, the prognosis

is quite good in the early stages. Ochsner says there is much reason for expecting a fair percentage of cures. Jacobson says that the operations has fully verified our expectations and justifies the statement that, except in very acute cases a timely operation radically performed will completely remove the disease and prevent recurrence in the majority of cases.

Dr. Bovee in summing up his conclusions on cancer of the uterus says that, radical surgery affords the best results at present, although he admits that early diagnosis is essential for complete eradication. So we could go on quoting from eminent surgeons, all advocating radical operations and insisting upon early diagnosis.

We cannot deny the fact, that these men with such vast experiences are in a measure correct; yet we must remember how easy it is for the surgeon to overlook some minutely affected foci that may exist in the neighboring tissues, or there may be some deep seated gland or duct escape attention and cause a recurrence of the disease. Nevertheless, we cannot say away with surgery, for it is too often a blessing to the suffering and a saver of life.

When we peruse the literature of the X-Ray workers some of their results are so brilliant, that for a time we are constrained to believe that their method is nearly a specific, and faith in its efficacy is strengthened when we remember, that for a long time the majority of cases applying for treatment were those considered inoperable and hopeless.

Such men as Allen, Massy, Monell, Snow and others, have demonstrated beyond any reasonable doubt, the efficacy of the X-Ray in the treatment of cancer. It is safely past the stage of experimentation, having withstood the crucial tests and criticisms to which other therapeutic agents have been subjected, and by undisturbed clinical experience has established its therapeutic value in the treatment of this disease.

Dr. Grubbe of Chicago, in concluding a paper before the American Roentgen Ray society, as far back as 1902, said, "that no matter what may be the ultimate answers to many questions which vex the medical profession today concerning the R-Ray, it must be conceded that, this force in the treatment of epithelioma is a prounced success and a knowledge of its merits should therefore, be more thoroughly disseminated and the cooperation of the profession in general should be given in order that humanity may reap the benefit."

Dr. E. G. Williams, professor of pathology in the Medical College of Virginia, in a paper read before this same Society at Cincinnati, October 1907, reports one hundred and eleven unselected cases occurring in his X-Ray practice, vary from a small keratosisis to well advanced sarcoma and carcinoma and extensive recurrent growths where metastasis was a pronounced feature, with such results, as to indicate that all lesions of the skin where they can be reached, may in the early stages be completely eradicated and much benefit may be derived in the advanced stages by relieving pain, retarding their growth and prolonging life.

Referring to the treatment of cancer by internal medication, the advocates of which are men of undisputed ability, and whose opinions are entitlod to most profound consideration.

Dr. Ende of New York, while advocating the use of X-Ray, in his second paper upon the use of sheep thyroid in the treatment of cancer, gives a number of clinical cases with such results as to commend a further consideration of its employment to the profession. Tripsin has had its advocates in America, while in Englond it has been disappointing.

Dr. Slack of LaGrange, in a paper read before the Medical Association of Georgia, on Mythilene blue in the treatment of malignant growths says that, his personal expyrience with the drug for ten years past has been very satisfactory, although he had to abandon the hope expressed in a former paper of affecting a cure by its use alone; still the benefits derived are such that he feels justified in continuing its administration. As said of the Surgeon and X-Rayists, we cannot discredit the ability of these eminent therpeutists.

We must accept the efforts of each class as being honestly and conscientiously applied with the sole object of benefiting humanity. They each have a work of equal importance and distinctly its own, yet many cases require the united efforts to affect a cure. The surgeon and X-Rayist, should work hand in hand and oftentimes their united efforts would prove a failure were it not for the drug therapy; therefore we should all unite upon the broad plane of applying the best remedies for accomplishing the most cures and relieving the greatest number of suffering humanity.

Some Observations on Digitalis and Its Uses.

By St. Geo. T. Grinnan, M. D., Richmond, Va.

As every case of impairment of the heart brings immediately to the physician's mind the word digitalis, and as digitalis is actually harmful in some heart cases and very necessary in others, a study of the proper

use of the drug is important.

Digitalis was not employed in medicine until about the time of the Norman conques, and for many years its use was empirical. The scientific introduction of the drug is due to Dr. William Withering of Birmingham, England, about the year 1775. The value of the drug was brought to his attention by the fact that an old Shropshire woman possessed a family receipt for the cure of dropsy, and that she often accomplished cures when orthodox practitioners failed to afford relief. The secret remedy contained about twenty different ingredients and a little investigation showed that the only one possessing active properties was the powdered foxglove leaves.

The active ingredients of digitalis are principally the glucocides digitoxin, digitalin, digitalein, digitonin and digitin. Digitoxin, digitalin and digitalein are heart poisons. Digitonin is either identical with the saponin of senega or closely allied to it, and suspends insoluble bodies in water. Digitonin is the body that accounts for the frothiness of the infusion. Some of the most powerfull ingredients of the the infusion are due to digitonin. Digitonin is a cardiac depressant and is therefore antagonistic to digitoxin, digitalin and digitalein. Digitin is physiologically inactive. The infusion contains much digitonin and not much digitoxin, the tincture contains both digitalin and digitoxin. Neither the infusion nor the tincture contains much digitoxin, but the tincture contains more than the infusion.

The preparation usually employed to act on the heart is the tincture, while the freshly prepared infusion is the best dieuretic.

The infusion should always be fresh, and even then it is liable to vary in potency. Different parts of the same plant, different soils and different seasons are responsible for the difference in potency. The crude drug should not be kept too long.

Vomiting when taking digitalis has been attributed almost entirely by Dr. MacKenzie to the irritant effect on the stomach.

Dr. Steele (Diseases of the Heart 1906) calls attention to the fact that the madulla oblongata would seem to be excited early by digitalis. It is evident that if the heart is weak and dilated, digitalis and its allies tend to lessen the dilatation, that is, the relaxation of the ventricle during diastate is less than before the administration of the drug.

The theory has been advanced, but not established, that when an irregular heart becomes regular under the influence of digitalis the effect is due to an inhibatory action lessening the irritability of the heart muscle.

It is certainly true that the influence exerted by drugs of the digitalis class upon the arterioles varies. Digitoxin contracts the arterioles of the body generally, digitalin acts especially on the arterioles of the splanchnic distribution, the arterioles of the limbs dilating.

Murrell (Manual of Materia Medica and Therapeutics, 1896) pointed out that the great and characteristic action of digitalis is that it affects elasticity of the cardiac muscle without at first modifying its contractile power. The immediate effect of this change is shown by increase in volume of the pulse, although the actual working power of the heart in some cases may be neither increased nor diminished.

Although the number of beats may be diminished the quantity of blood driven into the aorta is greater than before.

It is a mistake to believe that digitalis exerts a sedative action on the muscular substance of the heart. The heart may beat more slowly and yet do more work. The diuretic action of digitalis is due to the increased blood pressure. We must remember that when the blood pressure is at its height the secretion of urine is arrested, hence though a diuretic, when properly used the cumulative action of this drug has the power of arresting the eliminative function of the kidneys. In cases of marked hypertension digitalis may interfere with the function of the kidneys which is so necessary. In such cases it should always be combined with a purgative, unless the bowels are moving freely. Hence the favorite prescription, powdered digitalis gr. i, squill gr. i, calomel gr. i, is frequently used in nephritis where tension is above normal.

In mitral regurtitation digitalis is the first resource. It increases the force of the cardiac muscle and tends to cause the arterioles to contract. In such cases Broodbent says it may be given almost indefinitely, provided it does not cause nausea, or loss of appetite, or the amount of urine excreted is not diminished. Digitalis slows the heart by lengthening the diastolic pause. The cardic muscle is nourished only during the diastolic pause by the blood which then enters through the coronary arteries. Owing to prolonged diastole the increased nutrition thus afforded is of undoubted value.

The *status quo ut aute* may be restored with iron, strychnine, cod liver oil and other tonics. In regard to dosage it is well to be conservative. Too large a dose will produce nausea, vomiting, anuria and irregularity of the pulse. When no effect is reached, even by increasing the dose, digitalis given hyperdermically is often very useful. Where tricuspid regurgitation is combined with mitral regurgitation the

beneficial effects of digitalis is not near so marked. If, however, purgation is directed the effects of digitalis is usually marked.

In mitral stenosis digitalis should not be given unless there are symptoms of right ventricular failure and in such cases free purgation should precede the digitalis. Digitalis should not be given for a long time in mitral stenosis, if it is used. When dropsy and orthopnœa have been troublesome, tonics with digitalis may for a time restore the *status quo ut ante*. Digitalis is not so markedly beneficial in restoring compensation in mitral stenosis as in mitral regurgitation. Digitalis may restore regularity and it may cause irregularity of the pulse. The drug is more valuable where mitral stenosis is combined with mitral regurgitation.

In aortic insufficiency it is evident that digitalis favors the return of the blood to the heart and the drug is not therefore advantageous in such a case. The protracted use of digitalis in aortic stenosis is of questionable utility. Only when the left ventricle gives way and symptoms of back pressure through the lungs and embarrassment of the right ventricle occur is digitalis of service.

It is plain that digitalis is not so generally useful in aortic as in mitral diseases. When the heart muscle fails and the hypertrophy is not compensatory the drug is useful in both aortic stenosis and regurtitation. In regard to tricuspid regurgitation Dr. Raymond Crawford (The Practitioner, London, June 1807) says that the most valuable auxiliary of rest is digitalis, which he asserts acts as powerfully on the right heart (ventricle) as on the left. The drug should be given after free purgation to unload the veins, and should be combined with rapidly acting stimulants to tide over the delay of its effective dose. In such cases digitalis should be given in small increasing doses so as to give the pulmonary circulation time to readjust itself to the increased driving power of the right ventricle. If this caution is not regarded hæmoptysis is liable to occur. In many cases rest and digitalis, as above directed, will bring about a remarkable improvement in tricuspid regurgitation.

In endocarditis and in myocarditis the administration of digitalis would seem reasonable to increase the ventricular contraction, but in practice the administration of digitalis does not benefit and may do harm.

Sir Lauder Bruton (Text Book of Pharmacology and Therapeutics, 1885) says that the vagus centre and vagus nerve supply to the heart are so weakened by the effects of heat that digitalis fails to exert its slowing effect upon the ventricles. Thus in endocarditis and in myocarditis, when there is fever, we do not get the desired effect from the use of digitalis. In simple dilatation, or in simple failure of the cardiac muscle without degenerative changes or valvular lesions the result of the use of digitalis is favorable. In simple hypertrophy, on the other hand, digitalis does harm.

Digitalis is of especial value when the pulse is too frequent, weak and irregular, when there is œdema of the extremities, scanty, turbid and concentrated urine. Broodbent says that when frequency, weakness and irregularity are absent digitalis is rarely of service. He advises the use of iron, quinine and strychnine and the salts of potash as a diuretic.

The fact that a physician has been executed for using digitalis as a poison is rather startling to those skeptical of its physiological action. The following is quoted from Murrell's Manual of Pharmacology and Therapeutics. "Dr. de la Pommerais in Paris, in 1864, insured the life of a woman for 550000 fr. and then gave her *digitalin*, from the effects of which she died. No poison was detected in the body by chemical analysis; but it was shown in evidence that shortly before her death the deceased had vomited on the floor. A spirituous extract was made of the scrapings of the wood and of the substance deposited between the planks. A few grains of this extract were injected into a dog, which soon suffered from vomiting and depression of the heart's action, and died in twenty-two hours. Similar effects were produced in a rabbit, and on this evidence the prisoner was convicted and executed."

Bright's Disease: Its Pathology and Treatment.

By Benjamin K. Hays, M. D., Oxford, N. C.

An unusually large experience in the treatment of Bright's Disease, both in consultation with other physicians and in patients sent to me at the Buffalo Lithia Springs, has led me to note certain prevalent ideas in regard to the disease, to which I here beg to take exception.

1. That pain in the back is a symptom of chronic nephritis. Pain is present in nephrolithiasis, in pyelitis, in abscess, in tubercular and malignant disease and in hydronephrosis. Pain may be felt at times in acute nephritis, but I have never seen a case of uncomplicated chronic nephritis where the patient complained of pain in the back. As a rule pain in the back does not signify kidney trouble at all, and the impression which the laity and a large part of

the profession have to the contrary has been obtained not from observation nor from scientific research, but from the advertisements of patent medicines in the daily press.

2. That the indiscriminate use of drinking water is harmless. The manner in which excess of drinking water does harm is questioned, but no competent observer questions that it does do harm. At the Buffalo Lithia Springs where patients come with instructions to drink all the water they can, I have seen great injury done in this way.

3. That eating white meat is less harmful than eating red meat. This idea is based on the supposition that white meat contains less nitrogen than dark meat, and has been proved by von Noorden and others to be without foundation in fact. Recent text books have corrected this old error, but the patients who come to me invariably have been directed to eat all the fish and fowl desired but to abstain from all manner of red meat.

4. That the heart lesions and arterio-sclerosis are a complication of Bright's Disease. The cardiac and arterial changes are as much a part of the disease as are the renal changes, dependent upon the same pathology, and in no sense constituting a second and complicating disease.

5. That a moribund patient can be benefited by a trip to a mineral resort. The only good which can be accomplished by sending a patient in the last stage of any disease away from home is to keep him from dying on the home physician's hands, and is a criminal procedure.

Pathology.—Bright's Disease is a generic term used to designate the various inflammatory and degenerative processes to which the kidneys are subject. Delafield, from whom most American writers have copied, gives eight forms of the disease, while Musser gives eighteen subdivisions of the same trouble. The average physician does not carry these delicate distinctions in his head, nor would he be able to recognize them clinically if he did. The result in practice is a struggle with a condition of which the physician has no clear mental picture. The simplified pathology, which I here present, is based not on the idea of a superior knowledge of the subject, but on the desire to offer the busy practitioner a definite relationship between the pathology of the kidney and the clinical picture with which he is accustomed to deal.

In all chronic kidney troubles there is a wasting away of the epithelial tissue which is sooner or later replaced by connective tissue, resulting in sclerosis of the organ, provided, of course, that the process is not interrupted by the death of the patient.

We thus have

1. Acute Nephritis.

2. Sub-acute Nephritis with Degeneration.

3. Renal Sclerosis.

Students of pathology may subdivide these indefinitely, especially the second division. The terms parenchymatous, desquamative, glomerular, granular, fibroid, hæmorrhagic, tubal, diffuse, exudative, fatty, and waxy kidney may be used. This is a subject about which volumes have been written in controversy, a controversy in which I have no desire at present to take part.

Diagnosis.—The diagnosis of Bright's Disease is usually based upon the presence of albumin in the urine. When such a discovery is made the first question is, are the kidneys diseased? If so, is there an active inflammation, or a chronic degenerative process, or the two combined? To put the question differently, is the disease primarily of the kidneys, or is there a constitutional disorder in which the kidneys in common with other organs are involved?

Having determined that the kidneys are the seat of the disease, treatment at once involves a three-fold consideration, viz:

1. Since the kidneys are the natural sewers of the body their physiological activity must be maintained to prevent uræmia.

2. The inflamed organs must be protected and given as much rest as possible.

3. Body strength must be maintained.

Incidental symptoms are to be met as they arise.

Physiology.—Before entering upon a discussion of how best to meet these conditions I may be pardoned for refreshing your memory upon the minute anatomy and physiology of the kidneys.

Beneath a firm membrane and containing a large central cavity the substance of the kidney is seen to be made up of two distinct portions, the outer or cortical and the inner, medullary or pyramidal. The apices of the pyramids project into the central cavity while their bases rest in the cortical substance.

The microscope reveals the fact that the bulk of the kidney tissue is made up of minute tubules. Each tubule begins with a Malpighian body, located in the cortical substance, and extends by a circuitous course to its termination at the apex of a pyramid. The Malpighian body consists of an enveloping capsule, 1-120th of an inch in diameter, surrounded by a tuft of blood vessels called the glomerulus. A single short arteriole enters each capsule, breaking up into capillaries of which the tuft is formed, then reuniting into one or more veins passes out of the capsule in a

vessel, or vessels, notably smaller than the one which entered. The efferent vein then passes down to the side of the tubule about which it breaks up into a capillary network. The tubules are lined throughout with epithelium. There is an abundant blood supply to the kidneys, and the blood vessels and tubules compose the bulk of the organ. But, in addition to these and to the nerves and lymphatics the organ is permeated by connective tissue, giving support to tubules and vessels and binding the whole together.

Of the conflicting theories of Ludwig and Bowman concerning the secretion of urine I have not time to speak.

We have thus seen how there might be a parenchymatous, epithelial, or tubular inflammation on the one hand, or an interstitial, stroma, or connective tissue disease on the other. But these text book distinctions rarely exist in practice. Clinically we meet

Acute Nephritis.—Acute nephritis is an active inflammation, due to some toxic condition of the blood and involves first the Malpighian corpuscles, then the tubules, and finally, if progressive, the surrounding tissue. The treatment of this condition may be summed up in three words: *rest, eliminants, support.*

Too much stress cannot be laid upon an early recognition of the disease, nor can the routine examination of the urine in every case of illness be too frequently advised.

Rest in bed is of no less importance than in typhoid fever or pneumonia. The room must be kept warm and the body clothed in woolen. There are two reasons for this. By drawing the blood to the surface the kidneys are relieved of congestion, and by producing a sweat the skin relieves the kidneys of work.

Sudden chilling of the body is dangerous, but let no man think that a close, foul smelling room is essential to body warmth. Pure air is of just as much importance here, and for exactly the same reason as in tuberculosis. Free elimination by the bowels is of help to the kidneys. The obstinate constipation must be actively combatted. The kidneys must be flushed out, and to accomplish this all authorities agree that the best agent is water. My experience with the Buffalo Lithia Water in this condition has been most gratifying. It causes profuse diuresis, reduces the swelling of the limbs and face and relieves the uræmic headaches. I have never seen uræmic coma develop in a patient while using the water. On the other hand I have frequently relieved uræmic coma by throwing a normal saline solution made from Buffalo Lithia Water high into the bowels, or if the bowels are irritable, by injecting a pint of the solution under the skin.

Milk is the chief article of diet, but by no means the sole diet. Many a patient has died on a milk diet who might have been saved by a porter-house steak. When the kidneys are active and the tissues of the body crying for proteids nothing meets the indications like a good beef-steak. It is the most nourishing and the most easily digested of meats, and, unlike sweet milk, is not constipating. The amount to be given is the amount which can be oxidized within the human body. This can be ascertained by making a daily examination of the urine.

Hot applications over the kidneys are grateful, and the Sitz bath is sometimes of great benefit. Indications for drugs are to be met as they arise. Diuretin has acted well in my hands for suppression. Tyson says theocin is better, and Stuart McGuire reports satisfactory results from large doses of sparteine. Strychnine and digitalis for heart weakness; nitroglycerine for arterial pressure. As soon as convalescence is established my favorite remedy is Basham's Mixture. Time and again I have tried other drugs only to fall back on Basham's Mixture as the most satisfactory remedy to stimulate the flow of urine and at the same time overcome the anæmia.

Sub-Acute Nephritis with Degeneration.—This condition, commonly spoken of as chronic parenchymatous nephritis, long a thorn in the side of pathologists, may be looked upon as a transitional stage from an acute inflammation to a chronic sclerosis, in which both processes are more or less involved. The transition is frequently interrupted by death. The disease may follow the acute form or it may develop insidiously. It is more frequent in alcoholics, syphilitics, and tubercular patients. In the study of a large number of these patients I have noted the following: The patient is usually a male under fifty years of age, and quite corpulent. Upon inquiry it is found that he was reared in the country, led an exceedingly active life and was an enormous eater, especially of meats. Upon reaching adult life the patient moved to town, assumed a sedentary life involving care and responsibility; took practically no out-door exercise, yet continued the enormous diet. The patient when seen is still a large and rapid eater, and is especially fond of meats and highly seasoned food. It is customary to attribute the voracious appetite to a demand on the part of nature for a replacement of the wasted albumin. But one-half ounce of albumin would be an enormous quantity to be passed in twenty-four hours, yet would not require three

heavy meals for its replacement. This disease attacks men who have indulged in wine, women and midnight suppers. Their appetites have been unbridled from their youth up and they now refuse to be governed by the advice of a physician even, though they know that their lives depend upon it. When such a patient presents himself with anasarca, palpitation of the heart, shortness of breath, vertigo, blindness, loss of memory, stupor, and upon examination large quantities of albumin in his urine, while his face presents a listless putty-like expression, the diagnosis is easily made. This condition is critical, and I have the authority of Senator, of Berlin, for saying that the most that can be hoped for such a patient is to convert his trouble into renal sclerosis.

Most of my cases have been seen under very favorable auspices. Only in the summer months when the skin was active, at the Buffalo Lithia Springs, away from the worry and care of home and business, with restful surroundings, by the judicious use of the water supplemented by such medical treatment as was indicated, I have never failed to get some improvement. But the prognosis is uniformly bad.

Renal sclerosis or chronic interstitial nephritis opens another never ending source of controversy, viz: Is the disease primarily of the kidney or of the heart? Practically, it seems to me to make no difference. Tyson thinks that it does for the startling reason that the treatment "however unsatisfactory may be intelligently directed."

The pathogenic changes here are similar to those of old age. There is a gradual encroachment of the connective tissue upon the epithelium. The latter atrophies and in many places disappears altogether. This is true not only of the tubes and vessels of the kidneys, but of the vascular system generally; the result is arteriosclerosis. Cardiac hypertrophy is always present, usually associated with valvular lesions. The kidneys are reduced in size, sometimes to one-fourth the normal. This condition may be associated with cirrhosis of the liver, and sometimes follows gout and rheumatism.

Prognosis.—Osler, with characteristic brevity, dismisses the disease as absolutely incurable. Hare, while not hoping for a cure, thinks that proper treatment is of great benefit. Senator, of Berlin, perhaps the greatest living authority on the subject, says that patients who have shown no evidence of the disease for years, dying of other causes, have, upon post-mortem examination, shown unmistakable evidences of previously existing sclerosis, proving conclusively that a curative process does sometimes take place.

My own experience, at the Buffalo Lithia Springs, has been as follows: The average length of time in which the albumin require to disappear from the urine in the less severe cases is about two weeks. The patient is kept under observation for about two weeks longer and goes home apparently well. About one-half of this number when heard from, from one to two years later, have remained apparently well. The other half returns to the Springs much in the same condition as at first and the cycle of improvement is repeated. That is, the month's treatment serves to keep the patient on his feet for one year. A third class of cases which cannot always at first be distinguished from either of the other two, refuses to respond to treatment. The albumin is reduced, but does not disappear. The patient is somewhat improved, but he leaves in an unsatisfactory condition, and when next heard of he is dead.

Treatment.—Treatment here involves a three-fold consideration: care of the *heart*, of the *arteries* and of the *kidneys*, and may be summed up in one word, *temperance*. Temperance is not prohibition. The patient is not expected to stop work, live on a milk diet, and forego all the pleasures of life. What he should stop is shown in the usual cause of an acute exacerbation of the disease, viz: business worry, excitement, fatigue, exposure to cold, a heavy meal, a drinking bout, or venal excesses. Senator advises absolute rest in bed as an experiment in the beginning; places patient upon a temperate diet; advises a trip to a mineral resort; urges the use of iodides regardless of the cause of the trouble; for the palpitation of the heart employs ice bags, and for the cardiac asthma gives valerian, digitalis, nitroglycerine, and, if necessary, morphine.

Von Noorden, in a valuable monograph on the therapy of nephritis, after reviewing the various methods of treatment in vogue, notes that they all have for their object "saving the kidneys." He then proceeds to a study of these substances which are eliminated by the kidneys with ease and those which are eliminated with difficulty. The following is an abridgement of his conclusions:

Eliminated with difficulty are creatinin, proteids, sulphonal, trional, sulphuric acid, and benzoic acid. On the doubtful list that is eliminated at times with ease and at times with difficulty, are uric acid, and the xanthin bases, alcohol and water. Acetic, citric and hydrochloric acid are on the harmless list. Creatinin is found in meat extracts, meat broths, and in eggs. There are only traces in milk and none in vege-

tables. Phosphoric acid is found in milk but may be rendered harmless by the use of carbonate of lime, found in certain mineral waters. Proteid is found not only in meat, but is excessive in milk. Proteid is eliminated as urea, and the amount of milk necessary to maintain body strength yields more urea than can be eliminated. Three pints daily is the limit. To this cream may be added, provided it can be obtained pure, and that it does not cause digestive disturbances.

In acute nephritis the elimination is usually commensurate with the flow of urine, and when the latter is well established meat and eggs may be added to the dietary list.

Benzoic acid is found in green vegetables, fruit containing kernels and in cranberries. Pears, apples, and grapes contain none, and are advisable, either cooked or raw.

Hydrochloric acid when needed for the digestive apparatus is not contraindicated by the inflamed kidney, nor is lemon juice or vinegar in the least degree harmful.

Uric acid and xanthin bases are relatively well excreted, but when retained are toxic. To be excluded, therefore, from the patients' dietary are animal tissues containing nuclei, especially glandular meats, such as liver, kidney, spleen, and thymus. Muscle meats are not objectionable on this ground, but should not be used in the first stage of acute nephritis, nor in an acute exacerbation of chronic nephritis. When used no difference needs be made between white and dark meat.

Alcohol is contraindicated not because of the difficulty of excretion, but because its continued use makes it a local poison to the kidney tissue. It should be prohibited in chronic nephritis on the general ground that it is a causative factor of the disease, but in acute nephritis, where heart stimulation is indicated, alcohol may be used with advantage. No unfavorable results have been observed from such use.

Water.—The Von Noorden ideas of water in nephritis were incorporated in a paper which I had the honor to read before this body two years ago, and I shall not repeat them here.

All irritating drugs are prohibited, and the list is a long one. That acetic acid is not on the list naturally comes as a surprise to most of us.

Etiology, Pathology, and Treatment of Diseased Tonsils and Adenoids.

By B. D. Sibley, M. D., Birmingham, Alabama.

This subject is so perfectly familiar to us all, and has been so thoroughly thrashed out that it is with timidity I presume to try to interest the society.

The systematic routine examination of school children in the larger cities which is done by the supervision of a specially appointed health officer, is certainly a great benefit to the children in these communities. Often children suffer, and are retarded, mentally as well as physically, through either ignorance or indifference on the part of parents, or the lack of appreciation of the necessary care on the part of the family physician.

As to etiology, age is a principal factor. Diseased tonsils and adenoids usually develop in early childhood, especially hypertrophy, for at this stage the lymphatic tissue is especially susceptible to vascular change. The repeated colds at this age keep the lymphoid tissue of the pharynx congested, and overfed, which produces excessive growth of the adenoids and tonsils. It is as essential that the air be prepared by the nose before it enters the lungs as it is for the food to be prepared by the mouth before it enters the stomach.

The principal function of the nose is to supply heat and moisture. It has been estimated that the nasal cavities supply two quarts of liquid to the inspired air during twentp-four hours. Hence, any obstruction to the free passage of air through the nose, such as due to adenoids, will force the child to breathe through the mouth, a cavity which is not intended to prepare the air, which is laden with dust, and keeps the mouth, tonsils and pharynx dry, and lessens their resistance to bacteria. The entire mouth and teeth are affected, which is a serious question in childhood. Adenoids also interfere with aeration of the middle ear, and retards nasal secretion which does mischief in the eustachian tube.

By diseased tonsil is not meant only the hypertrophied, or large tonsil, which fills the faucial space, in which case the only disturbance that we frequently find is the loss of resonance to the voice, with an occasional follicular tonsilitis; but also includes the submerged or degenerate tonsil, which is equally as offensive and dangerous, if not more so. The only difference being merely in the fact that the enlarged tonsil stands out from between the pillars with its crypts usually open and free to throw off its detritus, while the degenerate tonsil has simply receded into its socket with its crypts more or less closed, preventing the escape of its contents; thus harboring bacteria to do their mischief.

This is why we so often see patients who have enormously large tonsils with little or no systemic disturbance, while a receding tonsil often produces marked general symptoms, at times so severe as to mask the local condition. It is an established fact that

normal, healthy mucous membrane stands as a barrier against the invasion of bacteria, but diseased epithelium does not do so. The epithelium which covers the surface of the tonsil is usually hard, tough and resistant, but that which is found within the crypts, which are often dilated and filled with decomposed food, exfoliated epithelial cells and bacteria, becomes damaged and is less resistant.

The crypts may become closed; if no bacteria are present there is not likely to be any systemic disturbance, but if bacteria are enclosed then an abscess forms and there may be marked constitutional symptoms. The bacteria may enter the lymph channels and produce abscess elsewhere, either in the lymph glands, or pass on to a more vital organ. Even if the bacteria are not absorbed the absorption of toxins may produce grave symptoms.

Jason of Hamburg has reported several cases in which general infection seems undoubtedly to have followed a tonsilar infection:

One a comatose girl—both tonsils apparently free from infection—had cutaneous hemorrhages, nephritis and death. Autopsy showed surface of tonsil smooth, but the interior had multiple abscesses. Abscesses were also found in other organs, had endocarditis.

Another case, a girl with angina, deposits on tonsils disappeared after two days; after eight days she had pleurisy, pericarditis and pneumonia. In the tonsilar deposits were found streptococci. Streptococci were also found in the pneumonic sputum; there were no pneumococci nor influenza bacilli found in the sputum.

Another case, a girl with severe angina; tonsilar deposits contained staphylococci; had pleurisy, pericarditis, pneumonia, death. Autopsy; tonsil smooth, general pyæmia; the same micro-organism was found everywhere.

Goodel observed 21 cases of tonsilitis followed by rheumatic arthritis. He regards tonsilitis as a local disease which is often the starting point for the infection of the system, which excites rheumatic arthritis; but thinks that a predisposition to acute articular rheumatism must exist if this disease is developed.

Boup placed colonies of tubercle bacilli on the tonsils of rabbits, which caused profound lesion of the tonsilar tissue, but has never found the bacilli. The peritonsilar and cervical glands were caseous.

Goodel reports an interesting case: A boy five years of age, for several months had nodes the size of a hickory nut on the left side of the neck, which would diminish and recur, always on the same side of the neck. Examination of the throat showed tonsils apparently normal in color, not large, nor adherent to the pillars; crypts showed no evidence of retention of contents. A small adenoid was found. Under general anæsthesia, the adenoid and tonsils were removed and examined microscopically. The adenoid showed no evidence of tuberculosis, while in the left tonsil was found giant cells. Inoculation into guinea pigs was made. The adenoid pigs proved negative, while the tonsil pigs developed tuberculosis of the spleen and other organs.

As a means of infection, he reports a series of fifteen cases occurring in a dairy, in all the deposits of the tonsils, and on the udder of a cow the same micro-organism was found.

The treatment of diseased tonsils consists in their complete removal.

As in other parts of the body where operative procedures are resorted to, a thorough knowledge of the anatomy ls necessary.

In the embryo, the mouth, nose and rhino pharynx are all one cavity, which becomes separated by the invagination of the maxillary process. The eustachian tube and tonsilar fossa are situated in the same branchial cleft, between the second and third arches. This cleft is divided into an upper and lower section by the formation of the palate. The upper section contains the eustachian tube and fossa of Rosenmuller; the lower section forms the tonsilar fossa. The two sections are separated by only a thin layer of connective tissue, a submerged tonsil which extends up and back into the tonsilar fossa, lies in close contact with the eustachian tube, and any swelling of the tissues will disturb the tube, give earache and interfere with the function of the ear.

The tonsil buds out from the mucous membrane at the base of the tongue, situated between the pillars of the fauces, and develops to varying sizes. In fœtal life there is a band of tissue which extends from the anterior pillar backward to the posterior pillar enclosing the tonsil. This band, known as the plicca triangularis, usually disappears, but sometimes remains to a varying degree and interferes with the operation for the removal of the tonsil.

Above the tonsil, between the two pillars, is a pyramidal space known as the supratonsilar fossa. Its size varies according to the size of the tonsil as well as the amount of fat in this region. I have a very thin patient whose tonsils have been removed completely, and yet a good sized plug of food and other matter will accumulate in the apex of this space, which she removes with her finger nail. She refuses operation to obliterate the space.

As to Anæsthesia:—In adults the fauces should be sprayed with 2 per cent. cocaine solution. After a few minutes each crypt as well as the surface of the tonsil is treated with the following:

Cocaine	-	-	1 part
Carbolic	-	-	1 part
Menthol	-	-	2 parts

In children local anæsthesia is inefficient. Nitrous oxide gas is unsatisfactory, owing to the fact that the patient recovers too rapidly to permit a thorough operation. There are several methods of removing tonsils. Some use scissors, others use tonsilatomes, the bistury or the snare, or cauterization.

The following method has served me best: Having the child anæsthetised, it is placed on its back with head extending over the end of the table, the shoulders reaching the edge of the table. This allows the head to be lowered or rotated at will. The Whitehead mouth gag is used, as it retains itself in position, and holds the mouth wide open; the tongue is depressed by an assistant. This leaves the fauces clearly open to view. Catch the tonsil with a pair of tonsil forceps; the pillars are then thoroughly dissected or separated from the tonsil by means of a curved blount and tonsil knife, which is curved on its flat side. If there is a plica triangularis present it should be removed with scissors; if the tonsil extends high up in the fossa this should be dissected from its capsule with the knife, which is curved on its flat surface, or with scissors. I prefer the flat knife. Take time and care to mop the blood from the field of operation, and see that the tonsil is entirely freed from its adhesions before separating it from its base. Pass the tonsil forceps through the loop of the snare, catch the tonsil with the forceps and draw it into the loop. Take time to see that it is adjusted snugly about the base of the tonsil, and tighten the wire until the tonsil is amputated. This method removes the tonsil completely. The method of hurriedly chopping off a piece of the tonsil with the tonsilatome is to be condemned, for while you may succeed in removing the obstruction from the fauces, there may be, as a result, a receding degenerate tonsil with its diseased crypts to invite further infection.

I know of only three alarming hemorrhages following the removal of tonsils, one of which was in my own practice; in each case the Matthews tonsilatome was used. The arrest of hemorrhage was accomplished by use of the tonsil hæmostadt. Should the hæmostadt fail to arrest the hemorrhage it is advised to stitch the pillars together, with or without a plug in the wound.

The after-treatment consists principally in keeping the wound clean with some mild alkaline antiseptic, such as Dobel's solution, and treating the wound according to indications. Sometimes when the child has lost a considerable amount of blood it is left anæmic and tonics are to be given. If the adenoids alone have to be removed gas may be used, but if at the same time the tonsils are also to be removed, general anæsthesia is more satisfactory.

There are several methods of operating for removal of adenoids. I usually first use an adenatome, and then follow with a curette, and then my finger to examine the vault of the pharynx, paying particular attention to the region above and back of the eustachian tube.

After a tonsilectomy the rhino-pharynx is filled with blood, and at times it is hard to tell if the adenoid has been removed entirely. If the result is not as good as expected, a second operation should be done to complete the work.

In conclusion, when we have a systemic disturbance without apparent cause we should inspect the tonsils as a possible source of the trouble. Even if the surface of the tonsil is smooth, a small curette inserted into the crypts may show evidence of the source of the disturbance. In the removal of the tonsils there should be as much care taken as in any other operation on the body, for we operate with a definite object in view, and should exhibit as much care as the general surgeon would elsewhere.

Do not operate with the sole idea of removing obstruction without considering the fact that tissue may be left to degenerate and cause further trouble.

If a plica triangularis is present, be sure to remove it, for if left a pocket will remain for accumulation of foreign matter.

Treatment of the Stump in Appendectomy.†

By F. T. Meriwether, M. D., Asheville, N. C.

The only mortality we should have in appendectomy, from the operation itself, is from sepsis and hemorrhage.

Sepsis, that is, as pertaining to an operative infection, may be eliminated, leaving only hemorrhage.

For this reason a great deal attaches itself to the handling and disposition of the stump of the appendix.

I think it is wrong to remove the appendix with a small section of the cecum, for not only does this mean a rather more difficult operation, that is of closing the open-

†Read by title at the meeting of the Mississippi Valley Medical Association, Columbus, Ohio, 1907.

ing in the cecum, but it also means the interference with the blood supply of the cecum and also the danger of secondary hemorrhage from a small twig.

The blood supply of the appendix is very variable, but the usual source is from one main artery, derived either from the posterior ileo-cecal, the ilio-colic or from a branch in the mesentery of the ilium. In these cases a simple ligation of the mesentery will obviate any danger of secondary hemorrhage.

A second source of supply is when there is more than one appendiceal artery, a proximal branch sending twigs to the cecum.

A third class is of those in which a large portion of the cecum is supplied from one or more branches of the appendiceal arteries, while a fourth class is of those in which the arteries form loops like the arteries of the mesentery.

According to Kelly, in about 5 per cent. of the cases, the cecal artery supplies the proximal portion of the appendix.

In these cases it is obvious that the usual ligation of the meso-appendix, amputation of the appendix and a purse string suture, with or without crushing, unless very thoroughly done, will not prevent some bleeding.

It is not uncommon to see quite a large stem from the anterior ilio-cecal run along just under the peritoneal coat of the appendix from its junction with the cecum for an inch or more. I am sure I have seen nine of such cases where nothing but a ligature, either around the little artery, or around the entire stump would stop the bleeding.

I usually crush the stump of the appendix with a strong hemostat, but it is very common to see the clot washed out of the little artery upon handling it rather roughly.

Of course familiarity with any one method will give the operator confidence in that method, and make one feel that it is the only safe one, but there must be some method which is the best, at least in the so-called clean cases.

Based upon an experience of over 550 cases, of all kinds, of which about two-thirds were clean, I have seen no case of secondary hemorrhage, or at least have recognized none, nor have I felt that my technique was at fault in any way, that is, in so far as the handling of the stump was concerned.

In pus cases, both local and circumscribed, and those with more or less general peritonitis, I have disposed of the stump in various ways, depending upon the exigencies of the case, though as a rule I attempt to follow upon nature's lines, and interfere as little as possible with the barriers which she throws around in the way of the adhesions, leaving the sloughing appendix alone in most cases.

And this I do not regret, never having lost a patient in which nature had assisted in walling off, even in part, the pus.

But it is in the clean cases I wish to speak, cases in which there is no pus outside of the appendix.

I know that some of our best men condemn the inversion or burying of the stump after a circular ligature has been placed around the stump, but I am sure I have had no trouble from this method.

I tie off the mesentery, separate it from the appendix, place two strong hemostats on the appendix close to the cecum, and tie the appendix off just proximal to the proximal hemostat, with fine silk, cutting the appendix off between the hemostats.

This crushing does not kill the tissues in the little stump left, and squeezes out anything that may have been in the caliber of the appendix into the cecum, but still, as I have noticed, may admit to a little arterial point bleeding, unless the circular ligature is used.

After wiping the stump rather roughly with gauze, to develop any bleeding points, if any, with the usual purse string suture I bury it within the gut, using a fine pair of hemostats to invert it.

If possible I bring the raw surface of the meso-appendix over this spot, which may usually be done without undue tension, making any leakage almost impossible, outwardly, and leaving absolutely no raw spots to form adhesions, though adhesions very seldom ever form even if the raw spots are uncovered.

If any infection should occur it would seem that it would surely drain inwardly into the caliber of the gut.

I have never seen a case in which secondary infection occurred, certainly there have been no symptoms arising to lead me to suspect such condition.

The absolute security against hemorrhage would seem to justify this method, for the danger of infection arising would appear to be very remote.

A large majority of the operations done by casual surgeons are treated by simple ligature of the stump and dropping within the abdomen, and yet very few of these cases show infection or even adhesion.

Still I feel it is safer to bury the raw stump or cover it in some way, and that is done so easily and effectively by the purse string suture, and as it takes but a short time, I always do it.

Certainly my experience would justify me in continuing this method.

The time of the operation, as so done,

varies in my hands from seven to twenty-five minutes, and has uniformly given me success.

Time saving is so important in abdominal operations, and as this method is certainly the most rapid, and as it seems to prevent hemorrhage, I should, personally, consider it by far the best.

Creosote, Cod-Liver Oil, Russell's Emulsion, and Ichthyolated Emulsion Compound in Tuberculosis.

By John Roy Williams, M. D., Greensboro, N. C.

I would offer apologies for bringing Creosote, Cod-liver Oil and Russell's Emulsion before this meeting, they being such time-worn subjects, but as it is my desire to bring to your notice a newer preparation, and in doing so to compare the old with the new, I feel sure that you will not require an apology.

I shall review in brief some of the points for consideration relative to Creosote, Cod-liver Oil and Russell's Emulsion, then pass on to the consideration of Ichthyolated Emulsion Compound in more detail. I wish to be understood as not claiming any specific action for any of these preparations in tuberculosis.

When speaking of Creosote, I have reference to Beechwood's, which is really the only Creosote we have, Morson's not being such chemically. Creosote in a relatively small percentage of cases gives much help in the arrest and cure of tuberculosis, through its stimulating action in the stomach, improving the secretion of the digestive ferments, bettering the digestion and assimilation, and in that way becoming a tissue builder. As a large majority of the cases of tuberculosis are complicated by a hypo-secretory and motor function of the stomach, Creosote improves the secretory and motor function, and thereby is derived the benefit of this drug in tuberculosis.

But Creosote is a drug which is very hard to control in its action, and soon this stimulating action passes into an active irritation, setting up a gastric and intestinal catarrh, which will undo all that can be derived of benefit from its use, and the patient will be found in worse condition than before the introduction of the remedy in the individual case. You may try to disguise it as to taste and protect the stomach and bowel from its irritant action, but too often your best efforts will be of no avail. The antiseptic action of Creosote while circulating in the body fluids, needs no comment here, as we are of one voice in admitting that such an action is not possible.

Cod-liver Oil, which was introduced into therapeutics about fifty years ago, prescribed as the pure oil or in the form of an emulsion, has value in some cases. It has been contended by a few physicians, and by all who have it for sale, that this preparation has a decided food value; but this does not meet with my opinion, as the small amount ingested in the twenty-four hours has not sufficient calorific value to warrant such a contention. The sole value derived from Cod-liver Oil is again that of gastric stimulation, similar to that produced by Creosote and is brought about by the free fatty acid; but again, in the majority of cases, the stimulation passes into irritation, and a gastric and intestinal catarrh follows.

Russell's Emulsion, a preparation of later date, when analyzed proves to be nothing but an artificial Cod-liver Oil, the stimulating agent in it being the Oil of Cinnamon or Oil of Cloves. The Oil of Peanuts and Lard, with possibly a little Olive Oil or Cotton Seed Oil, supply the place of the bland oil in Cod-Liver Oil. Neither the label on the bottle nor the literature accompanying it gives the formula of this preparation. It is supposed that the oils in this preparation have been predigested by the use of Pancreatin, the exact method of so doing not being stated in the literature. Like Creosote and Cod-Liver Oil, it often produces nausea and vomiting, and if persisted in gastric and intestinal catarrh are sure to follow. The presence of the animal fat, lard, shows that it is not a stable preparation, and observation has shown that it often spoils on the shelves of the drug store. I feel inclined to relegate this preparation to the same class as Creosote and Cod-Liver Oil.

In 1894 Cohn introduced into therapeutics Ichthyol as a valuable remedy in the treatment of tuberculosis, and the results obtained from its use are such as to warrant this opinion of it as a therapeutic agent. In the stomach and bowel it has a stimulating action which fortunately can be easily controlled if properly prescribed. It increases the secretion of the digestive ferments and improves the digestion and assimilation. After absorption, it is eliminated by the kidneys in the form of sulphur compounds, acting, by its salt action, as a valuable diuretic, improving elimination by that channel. It also tends to make the sputum more fluid and expectoration easier, bettering the drainage from the diseased focci, and removing to a large extent the cause of fever and rapid heart by lessening absorption. In many cases it seems to lessen materially the night sweats. We should not lose sight of its local antiseptic action in the bowel and its stimulating action on the muscular walls of the bowel, improving the elimination in that direction.

Since the introduction of this drug, it has been prescribed in watery solution, capsule, or in pill form. To one who has ever tasted or smelled Ichthyol, it is unnecessary to say that the watery solution is not an agreeable method of prescribing it. The odor and taste are often so repulsive, and to such a degree, as to cause nausea and vomiting; and the very large doses, fifty to sixty drops, sometimes cause gastric irritation, with a constant "rifting" and taste of the drug. In capsules these disagreeable features are not eliminated, and as the gelatine-coated pill often passes through without being dissolved, any therapeutic action from its use in this form cannot be relied upon.

About a year ago I conceived the idea of putting Ichthyol into an emulsion, and if possible to disguise the odor and taste. I began some experiments endeavoring to incorporate thirty grains of Ichthyol to the ounce, but was unable to get the emulsion to stand up longer than a few hours. I decided to replace a part of the Ichthyol with some other drug which has a similar therapeutic action. I substituted Apinol in full doses for about half of the Ichthyol, and succeeded by using Olive Oil, Sweet Oil, Glycerine, Sassafras, and a minimum amount of Mucilage of Acacia in getting a perfect emulsion. I am indebted to Mr. Coppedge, prescription clerk at one of our leading drug stores, for valuable assistance.

I began by experimenting upon myself with this preparation, believing that a hyperacidity would contraindicate its use; and having suffered from such a condition for several years, I was convinced that if my stomach would tolerate it, it would be well borne by almost any stomach. It not only did not disagree, but I received great benefit in that a normal movement of the bowels occurred daily, I for years having suffered with a chronic constipation. After two weeks I had gained six pounds in flesh, and while I have no intention to offer myself as a clinic, yet I feel all would not be told should I neglect to say that ever since I was three years old I have suffered with chronic bronchitis, and when taking this emulsion the cough and expectoration consequent upon such a disease annoyed me less than ever before in my history as I remember it.

I have used this preparation in seven cases of tuberculosis, and in not one of them has there been a failure to gain in flesh and strength. It has had the desired effect on the cough and expectoration and helped to control the pulse and temperature. Three cases suffered with constipation for which I was giving small daily doses of Epsom Salts, but the salts were left off after prescribing the emulsion. None of these cases has had further trouble with the bowels. An increase in the daily quantity of urine has been noticed in every case.

About ten other physicians in Greensboro are prescribing this preparation and report very satisfactory results from its use. One case, a charity case treated by Dr. A. F. Fortune, is worthy of note: Married woman; middle age; occupation, house work; cough and expectoration marked; tubercle bacilli in the sputum; afternoon temperature 102; pulse 110; night sweats marked; loss of flesh and strength; no appetite, and a tendency to constipation; disease involving the upper third of the left upper lobe. Calomel was given that night and the patient put on Ichthyolated Emulsion Compound, with no other medication. At the end of three weeks the patient was seen again; the afternoon temperature and pulse were normal, and there had been a gain of fifteen pounds. There was gain in strength, appetite good, bowels regular, night sweats disappeared, with slight cough and expectoration remaining. In every particular this case showed marked and decided improvement, and much more rapidly than was to be expected. I report it with Dr. Fortune's permission to show what Ichthyol and Apinol can accomplish in this form. It is with pleasure I am able to report that Ichthyol can be given in a palatable form, where its therapeutic effects can be depended upon and where the clinical results are such as to warrant its application in tuberculosis, bronchitis, chronic constipation, or in any disease where Creosote, Cod-Liver Oil, and Russell's Emulsion may be indicated; and obtain all the virtues of these preparations, yet escape the untoward effects.

I beg to conclude by summarizing as follows:

1. That Creosote, while sometimes a beneficial drug, is a dangerous one in therapeutics because of a marked tendency to produce a gastric and intestinal catarrh.

2. That what is true of Creosote is also true of Cod-Liver Oil and Russell's Emulsion.

3. That Ichthyolated Emulsion Compound has all of the beneficial effects of Creosote, Cod-Liver Oil and Russell's Emulsion, yet is devoid of their untoward effects and is a superior preparation.

The Care and Treatment of the Average Drug Habitue.*

By W. C. Ashworth, M. D., Resident Physician The Telfair Sanitarium, Asheville, N. C.

There is no branch of medicine or class

*Read before the recent meeting of the Tri-State Medical Association at Charlotte, N. C.

of patients that appeals to me with such force and interest as the above class of patients. I have for years desired that this class of unfortunates be cared for in a humane manner. I am fully cognizant of the fact that they usually tax the resources of the physician to their utmost capacity. No class of patients make such demand upon a physician's time and resources as do these patients during their treatment. I have found that drug patients, as a rule, are unusually bright mentally, and that as a class they are nearly always natural mechanics. You seldom find one who is stupid, but on the other hand they are quick thinkers and always on the alert for a new idea and a change from the usual way of doing things. I often find them of much help to me in a mechanical way when things go wrong about the Sanitarium. I find they fully appreciate every evidence of an interest in their case and that any attention given them is always fully reciprocated. I take every drug patient with the full understanding that I propose to be his friend all the way through the trying ordeal of the treatment, and that I will give him all the relief that is at all consistent with a cure. My plan of treatment is by the gradual reduction of the amount of the drug used, and in the meantime the administration of strong reconstructive tonics, which enables me to withdraw the drug with the minimum amount of discomfort, in fact the discomfort is so slight that the patient is seldom aware when the drug is entirely withdrawn.

I do not approve of the hyoscine treatment, because of its dangerous results, and the fact that I believe there is danger of the drug productng a permanent lesion of the brain. The hallucinations produced by hyoscine are often of the most disagreeable nature, making the confinement of the patient necessary, and the constant presence of an attendant necessary.

I find that if the eliminative organs are kept in an active condition and the circulation maintained by the use of proper tonics, that the discomfort due to the withdrawal of the drug is slight and of short duration. I have yet my first patient to see that I have found it necessary to give a "knock out" drug. I find the percentage of relapses is smaller if the patient is mentally clear throughout the treatment. When the drug patient leaves the Sanitarium realizing that something terrible has happened during his treatment he is much more apt to go back to the drug than if he had been treated in a rational manner, and fully conscious of all that had been done for him, and the relief obtained. Another very important point in the management of these cases is proper dieting.

I have never yet encountered a diarrhœa in a drug patient during the withdrawal of the drug that did not yield to a few doses of bismuth or catechu. This fact I attribute largely to careful dieting throughout the treatment, and especially during the last few days prior to the complete withdrawal of the drug.

I have found that the interrupted electric current from a high frequency machine in the form of a spray over the spine often relieves many of the nondescript aches so often encountered during the withdrawal of the drug. It is here, also, that suggestive therapeutics plays a very important role in the management and control of many obstinate symptoms.

In regard to the use of hot baths will say that each case is a law unto itself, and the physician in charge will learn to prescribe them for the class of patients most benefited by their use. All drug patients will be benefited by warm alcoholic rubs and a moderate amount of massage.

In regard to the use of bromides for nervous conditions will say that we have found them entirely useless, their continued use disastrous in effect and clearly contraindicated in a great majority of cases. It is our plan to teach our patients the futility of depending upon the use of any nervine for support, as its use certainly will make such an impression on the nervous system as will lead to the use of opiates. I have never yet known a drug patient who reported to the use of alcohol that did not relapse and go back to the use of his former drug.

I expect in another paper to call attention to the duty of the State in behalf of these patients. I see no reason why they should not be cared for as the epileptics of New York and the tubercular of our own State.

Unusual Case of Ovarian Cyst.†

By H. Stuart MacLean, M. D., Richmond, Va., Professor of Pathology, University College of Medicine; Visiting Surgeon, Virginia Hospital; Chief Surgeon V. P. & P. Co., R. & P. R. Co., R. & C. R. Co., etc.

While it is a recognized fact that ovarian tumors occur at all ages, yet the number occurring in childhood are so few as to make it of interest to report such cases. I do not want to make the case an excuse for reading to you what the text-books say regarding the nature, etc., of ovarian tumors in children, but it is of interest to recall that a considerable number of such cases are dermoids in character. Several years

†Read before the Tri-State Medical Association meeting at Charlotte February 19, 1908.

ago Bland Sutton reported having collected sixty cases of ovarian tumors in children under fifteen years of age; twenty-three were dermoids; sixteen ovarian cysts, and sixteen were sarcoma.

Cases of cystic degeneration of the ovary are not infrequently seen in early life, but the cysts are usually the size of a small pea, and do not call for operative interventions.

The following case came under my care recently:

Bessie B. was referred to me on Dec. 1st, 1907, on account of an abdominal enlargement, and gave the following history: Three years ago (at ten years of age) while playing, she fell, and was kicked in the abdomen by a play-mate. Shortly thereafter, a lump was noticed in the left side, which at the time was the size of a small-apple, and from that time gradually increased. One year ago (twelve years of age) she began to menstruate, and since then has menstruated regularly, freely and painlessly. I found a well developed girl in excellent health, and upon abdominal examination, a tumor was found which completely filled the lower abdomen, and extended upward and backward, and to the left above the umbilicus. It was evidently cystic, and apparently had sprung from the left ovary. On account of its great size, it could not be moved freely, but because of the absence of any symptoms, I felt sure there had been little or no inflammatory attachments formed.

On December 23rd, 1907, I operated upon her, making a four inch median incision, evacuating the cystic fluid from two of the cysts and readily removed the tumor, which I found involved the right ovary instead of the left.

Patient made an uneventful recovery, and left the hospital within a month.

The tumor consisted of one large cyst compartment, and three smaller ones, and at the pedicle, which was about the size and shape of two fingers was a mass of tissue, representing the remains of the right ovary. The tumor measured in circumference eighteen inches (when redistended with fluid) transversely by twenty-three inches perpendicularly, and the contents was of a light straw color. The tube was normal, except that it was adherent to the base of the tumor. The left ovary was normal.

Influenza Pneumonia.

By Dr. J. R. Nelson, Eurekaton, Tennessee.

I have chosen pneumonia as the subject of my paper, not that I propose to offer anything new on the subject, but to emphasize a few items and briefly report my method of treating this disease. In writing this paper I shall neither dwell on the etiology, the pathology, the bacteriology, nor the different types, since all of this is well known to the profession. I shall briefly report one of the thirteen cases of unusual features which came under my observation a short time since. These cases were all complicated with influenza and ran a similar course, characterized by stubborn, acute neuralgic pains, not the pleuritic stitch, but violent pains in the bowels, head, shoulders and other portions of the body. These attacks continued throughout the disease, sometimes a violent pleurodynia leading one to suppose that a new portion of the lung was invaded; another patient suffered with excruciating pains in the right iliac fossa and concluded that he had appendicitis.

Case 1.—Miss W., white, aged 15. She had been confined to her bed for several days with lagrippe, (nervous type), complained of severe frontal headache, pains in the shoulders, back, and joints. She was considerably prostrated, could sit up in bed only a few minutes, was seized with a rigor, followed by severe pains in the lungs. This occurred on the evening of the sixth day of her illness. I did not see her that night, but advised them to use hot turpentine flannels and hot applications over the seat of pain, also advised them to give her one-fourth of a grain of morphia should they fail to relieve her otherwise. I saw her next morning. Physical examination revealed the right lower lobe of the lung consolidated. Her temperature was 103½ degrees F., pulse 130, respiration 40. She had a hacking cough and was expectorating the brick dust sputa. On auscultation the crepitant rale could be distinctly heard. She was resting quietly under the influence of morphine. I was informed by the nurse that after blistering her with the hot turpentine flannels and hot applications they had failed to relieve her and gave her the morphine about 3 a. m. Prescribed quinine with veratrum viride to be given in the usual dose every two hours alternately, also calomel in two grain doses to be taken every four hours till it produced the desired result. Several members of the family were down at the time with lagrippe. I kept the patient in a room to herself, had all the secretions that could be gotten burned and the vessels sterilized, allowed only two nurses in the room at the time, nurses of sufficient experience and intellect to watch the pulse and temperature. Advised the nurse to continue quinine and veratrum till the pulse and temperature became near normal, then to leave off veratrum and continue quinine. Advised them to keep the

room quiet, well ventilated and a uniform temperature. I saw her the next day which was the third day of the attack. The pulse and temperature were near normal, respiration 30, the skin was normal, the calomel had also produced the desired effect. I stopped the veratrum and continued quinine every four hours. Recommended a liquid diet at regular intervals. The patient was doing well with one exception, she was suffering with excruciating pains in both knees, kept raising her feet up. On examining her knees I found them quite cold, applied hot applications to them. Was called hurriedly to see her on the morning of the fourth day, found her suffering intensely with a pain in the left lung which they had failed to relieve by the usual method. I gave her one-fourth of a grain of morphia, 1-150 of atropia hypodermically, placed a large antiphlogistine plaster over both lungs. She continued to suffer. I waited one hour and gave her morphia one-half grain, atropia 1-150. Her pulse was very weak, temperature 99 degrees F., respiration 40. I gave strychnia 1-30th of a grain hypodermically, shortly after I gave the morphia. Prescribed strychnia 1-30th of a grain every three hours, with whiskey in eggnog, requested the nurse to see that the patient took as much as twelve ounces of whiskey in twenty-four hours. On the fifth day her symptoms were worse, no improvement in pulse, temperature subnormal, respiration hurried, tongue becoming dry and coated, some tympanitis, secretions checked. Did not give calomel. Prescribed strychnia 1-30th of a grain every three hours hypodermically, continued whiskey, gave acetate of potash and turpentine emulsion every four hours, gave also an enema which had the desired effect, had turpentine stupes placed over the bowels. On the sixth day her symptoms were some better, the kidneys were eliminating well, the temperature, pulse, and respiration improved. On the night of the sixth day I was called to see her again, found her in agony. She was suffering with a severe case of cervico brachial neuralgia. I gave her a hypodermic of morphia one-half grain, atropin 1-150, applied hot applications, continued turpentine emulsions, whiskey and strychnia, discontinued the diuretic as the kidneys were eliminating properly. On the seventh day the symptoms were decidedly better, pulse 100, temperature normal, respiration 22, tongue moist. I discovered a little tympanitis and gave her a dose of oliumricini with a few drops of turpentine which gave satisfaction in a few hours' The patient gave me no further trouble, continued to improve and made an uneventful recovery. The other 12 cases ran a similar course and very little change was made in the management of them. The average duration of these cases was about 10 days. They all recovered, fortunately there were no organic heart troubles nor diseased kidneys.

As a local treatment I prefer counter irritants to blisters. I find that the hot turpentine flannels, applied to the seat of pain with a hot iron frequently obviates the necessity of morphine. We are all well aware of the fact that our pneumonia patients would do better without a single dose of morphine could we only find something less harmful to relieve the pain. This drug not only checks all the secretions, but depresses and tends to paralyze the respiratory centres. I have used the antiphlogistine plaster a great deal. I can't see that it has any advantage over counter-irritants or blisters, in fact it does not seem to relieve pain quite so well. I now use it mostly for its psychological effect, that is where the patient has been taught to believe that he must use one or die. Experience has taught me that there is more in the psychological action of drugs than is generally supposed to be. Twenty-seven years of experience has taught me that veratrum viride properly given is the "*sine qua non*" in pneumonia. I believe it has a specific effect upon the primary lesion. I regard it indispensable when the "ryhthm of the heart and blood vessels is under the control of systolic power." I have never seen any bad results from the use of it. When the cardiac muscles become weak from toxemia and overwork, I am very partial to strychnia as a stimulant and give it as the case demands. Digitalis irritates mucous linings. I quit giving it many years ago in this disease, only when complicated with some forms of organic heart trouble. It is very important to keep the kidneys acting freely in order to eliminate the toxins which are so conducive to danger, but I prefer other dieuretics to digitalis. I never give calomel in the later stages of pneumonia, since it will often produce the very trouble we are trying to obviate.

I have briefly given my method of treating pneumonia, a method which was taught me twenty-seven years ago while at the University of Louisiana. Doubtless some of the up-to-date physicians will call me old fogy. That may be correct, but I am willing to meet them at the bar of mortuary statistics. I believe strongly in progressive medicine, and have always endeavored to keep abreast with the profession; am a member of four medical societies. I am well aware that quite a change has taken place in the last thirty years; a wonderful improvement, but have we made any im-

provement in the treatment of pneumonia? Since the discovery of the pneumococcus we are informed that the pneumonic lesion is the result of a local infection and constitutional symptoms the result of a general toxaemia. This new theory was very encouraging to the profession, as we then hoped to discover an antipneumococcic serum which would enable us to wholly eradicate the toxaemia from the system with about two injections from the hypodermic syringe. Up to date, however, the serum treatment has not been altogether satisfactory, though the Klemperer brothers and others have had some success with it, and we truly hope that the day is not far distant when an antipneumococcic serum will be discovered which will enable us to treat the disease as successfully as we now treat diphtheria. I regret to say that the death rate in this malady is on the increase. I quote from Dr. McCown, of Memphis, who has taken pains to look up statistics. He quotes Hass, who shows that the death rate from 1880 to 1895 was greater than it was during the same number of years beginning in 1840. With reference to Hass' series, 1840 to 1855, there isn't anything said about the treatment. We quote from Woods' Practice of Medicine published in 1855, "In persons with vigorous constitutions bleeding is the most efficient remedy in pneumonia. No disease bears the loss of blood better than open, well developed pneumonia. Should the symptoms have in no degree abated, we may bleed again and continue to do so at intervals, till the pulse rate has been reduced and the inflammatory symptoms checked. After the first bleeding the bowels should be thoroughly evacuated by an active cathartic. Throughout the disease it will be sufficient merely to keep them open once or twice a day." After a careful study of the statistics in the mortality of pneumonia fifty years ago, when the treatment was blistering, *bleeding* and active purgatives, as compared with those of later days of negative therapy and stimulants, it shows that the old plan has the advantage of a lower death rate, and that "in our eternal strife for progress, we have had the cart before the horse and have been going backward." N. S. Davis, of Chicago, whom we all knew and admired, said "that the ratio of deaths from attacks of pneumonia had increased during the last fifty years is generally admitted. And yet having carefully observed the results of the method of treatment of pneumonia, from the middle of the second quarter of the nineteenth century, until the present time, I am fully satisfied that part of the increased mortality is caused by the injudicious selection and use of medicines." Auprecht says "There is no indication for medicinal treatment so long as no severe symptoms or complications make their appearance." W. G. Thompson says "medicinal treatment has no positive influence upon the course of the disease," and in Osler's Practice of Medicine we read, "Patients are more often damaged than helped by the promiscuous drugging which is only too prevalent." Having the statistics before us showing an increased mortality in this disease, we are convinced that there is something radically wrong somewhere. I am inclined to think like N. S. Davis and others, that mistakes are made in the injudicious selection and use of drugs. There is no excuse whatever for loosing a case of uncomplicated pneumonia unless the patient is an infant or a very aged person. I have treated many cases of pneumonia during the last twenty-seven years, and I do not say it boastingly but I cannot remember when I have lost a case of uncomplicated pneumonia.

Report of a Case of Carcinoma of the Head of the Pancreas.

By Dr. R. D. V. Jones and Dr. J. F. Patterson, Newberne, N. C.

In reporting this case we realize the truthfulness of the saying, "Beware of the man who reports a single case," but in this instance it would take a very broad experience to obtain a series of similar cases; so we think there is justification in reporting this one.

On December 4th, 1907, patient was admitted to the Stewart Sanitorium suffering icterus, the following history being elicited:

Male; white; age 69; family history negative; past history presenting the usual diseases of childhood and having no bearing upon the present illness.

The present illness commenced last May; the patient at that time suffering with "indigestion" and noticed that he was losing flesh. This condition progressed until November 1st when he commenced to become jaundiced; this jaundice has been a progressive one, there being no acute exacerbations, until the present when it is quite pronounced. All history of pain in the hepatic region or right shoulder is denied.

Physical Examination.—Patient is emaciated; color of skin is of a walnut hue. Pupils are equal and react to light and accommodation. Conjunctural yellow.

Langs.—Apparently normal.

Heart.—No murmurs; 2nd aortic sound is accentuated. Rate is 66 per minute.

Liver.—Enlarged; the anterior border extending three inches beneath the costal margin.

Gall Bladder.—Greatly enlarged. In fact it can be outlined upon inspection, the fundus extending below the transverse umbilical line.

Kidneys.—Not palpable.

Spleen.—Not palpable.

Lymphatic Glands.—Not enlarged.

Pulse 66; respiration 16; temperature 97 deg. F.

Urinalysis.—Dark amber; turbid; acid; 1028; albumin present; bile present; no sugar; amorphous urates; epithelium; few white blood corpuscles; no casts.

Diagnosis.—Tentative diagnosis of carcinoma of the head of the pancreas.

An exploratory operation was decided upon, so the patient was placed upon the routine preparation for a "section." In addition calcium chloride in 10 grain doses every two hours was ordered; with the hopes of increasing the coagulability of the blood.

December 8, 1907.—At noon patient was sent to the operating room, chloroform anæsthesia being used. Operation by Dr. R. D. V. Jones. Incision of "Bevan" was made; abdomen contained some ascitic fluid; lesser peritoneal cavity was distended with fluid. Pancreas was found to be enlarged and indurated. The diagnosis of carcinoma being confirmed. The gall bladder was tapped, over one quart of bile being removed. A cholecystostomy was then performed. Patient become somewhat shocked, so one quart of normal saline fluid was given by hypodermoclysis.

Patient was returned to his room at 1:30 p. m. He reacted nicely from the operation, and did nicely for the following 24 hours, but then became toxic and died upon the 12th with symptoms of cholaemia.

The interesting point in this case was the diagnosis, which was based upon the following points:

(1) *Courvoiseirs' Rule.*—Icterus with a distended gall bladder without pain points to carcinoma of the head of the pancreas; whereas icterus with a distended gall bladder with pain usually means stone in the common duct.

(2) The jaundice being a progressive one; there being no exacerbations as one would expect in case of a stone in the common duct.

(3) Absence of Charcot's Hepatic Intermitent Fever, which is present with stone in the common duct.

The main aid in the diagnosis was the absence of pain; and 'tis well worth remembering that icterus, plus a distended gall bladder, minus pain, usually means carcinoma of the head of the pancreas.

Diagnosis, Its Importance—With Special Reference to Surgical Diseases.

By J. H. Johns, M. D., Demonstrator of Anatomy and Assistant to Chair of Clinical Surgery, College of Physicians and Surgnons, Atlanta.

It has been said that "a correct diagnosis is the essential preliminary to a just prognosis and wise treatment." The art of diagnosis, in addition to being one of the most important features of a medical education, is the one with which the recent graduate is, necessarily, least conversant and the one which he must develop largely for himself after he begins practice.

Many doctors do not seem to realize that correct diagnosis is essential and fall into the careless habit of treating symptomatically, much to their own as well as their patients' detriment, as they never develop that diagnostic acumen which comes only from close observation.

In general practice we consider diagnostic ability a necessary requisite to a "good doctor;" but, as importpnt as it is here, the fact that in most cases the internal medication is largely supportive and eliminative, aided by rest (we have specific remedies for but few diseases) gives us more time to arrive at a conclusion and makes a rapid and accurate diagnosis less imperative than in many surgical diseases. In many acute surgical diseases a quick and accurate diagnosis is of vital importance. A delay of even a few hours may mean the death of our patient.

The comparative safety with which the average operation may be gone into is sometimes given as an excuse for a surgeon making his diagnosis during operation, instead of arriving at all possidble conclusions that the urgency of the case will allow beforehand. This is not a valid excuse. Such metods are conducive to careless habits in examination, besides an accurate diagnosis will often enable us to avod a useless operation and there is nothing which facilitates an operation more than a definite idea of the condition with which we are going to deal. The surgeon who depends too much on a diagnosis during operation will often have occasion to censure himsely for not making a greater effort to diagnose the condition. and consequently be better prepared to deal with the case in hand, and will often be forced to give a prognosis after operation which is at great variance with the one given before.

Ability to make an accurate diagnosis in surgical diseases is even more importannt to the general practitioner, especially those who have to summon a surgeon from a distance to operate for them. It often means that the patient is in a hopeless condition from general peritonitis, is beyond surgical

aid from cancer or has the bone of a limb practically destroyed by osteomyelitis when the surgeon first sees him, whereas he might have had an acutely inflamed appendix removed, a tibia trephined or a small malignant tumor removed with very different results had a correct diagnosis been made and the surgeon's aid sought earlier.

When we consider for a moment the doctors whom we know to be the best diagnosticians, we will remember that they are the most careful and systematic examiners and the closest observers. The majority of the mistakes we make are not in regard to things we do not know, but things we do not see. Sir Wm. Jenner said; "More mistakes are made by want of looking than by want of knowing." How often have we seen a mistaken diagnosis excused : "I didn't notice so and so."

The first point to be remembered as necessary then, is to see everything that may have any bearing on the condition. The way to see everything is to make a careful investigation, not merely an apology for an examination. The second point is the correct interpretation of what we have seen —this can only be done by looking back of the symptom and considering the cause producing it.

Laboratory findings are conclusive evidence of certain diseases and in many cases, when taken in conjunction with the results of careful clinical examination and observation are invaluable aids in making an accurate diagnosis. As an instance of this kind, we might mentlon a leucocytosis, when considered with clinical evidence, may determine an obscure suppurative process which might be otherwise confounded with typhoid fever. Laboratory aid should always be sought when necessary to enable us to make an accurate diagnosis.

We should go about a clinical examination with the idea of determining the condition present, rather than to prove our first suspicions or impression correct. We should form a habit of bringing out the desired information in a systematic manner, thereby saving time and often sparing the patient the pain of discomfort or repeated examinations to bring out several points, all of which should have been determined by one properly conducted examination, We have often seen a superficial tumor palpated, when the examiner, after completing his examination, was unable to say whether the tumor was solid or cystic, fixed or movable, in fact had failed to bring out any valuable point which the examination should have revealed.

The more proficient the general practitioner becomes in the diagnosis of general diseases the more successful will be in practice, as correct treatment is inseparable from correct diagnosis, and the more he familiarizes himself with the diagnosis of surgical diseases, the fewer will be the number of his patients who will die, "as the result of a surgical operation," which usually means *in spite of an operation.*

The time has come when every doctor must realize that accurate diagnosis is essential to the practice of scientific medicine and surgery, and must cultivate the habit of careful examination and keep posted as to the most advanced methods of the same, if he would keep abreast of the advancement of medical science and give his patients the service which they have a right to expect.

601-2, Century Building.

Appendicitis: Methods of Treatment: Report of Two Hundred and Six Cases with Four Deaths.‡

By Murat Willis, M. D., Adjunct Professor of Abdominal Surgery, Medical College of Virginia; Junior Surgeon to Memorial Hospital, Richmond, Va.

The purpose or this brief report is to outline the methods of treatment employed in the various forms of inflammation of the vermiform appendix as they have occurred in the service of Dr. George Ben Johnston in the past twenty-two months during which time I have been associated with him as assistant. These cases are divided as follows:

1. Chronic appendicitis, 131 cases, no deaths.

2. Acute appendicitis, (a) Seen in first 48 hours of attack, immediate or interval operation, 37 cases, no deaths. (b) Seen between 48th hour and 7th day, 20 cases, 1 death. (c) With abscess after 7th day, 12 cases, 1 death. (d) With general peritonitis, 6 cases, 2 deaths.

The cause of the death in group (b) is not known. The death in group (c) occurred 21 days after operation from multiple abscesses of the liver as shown at autopsy. This is a record of every operated case and shows a mortality of less than 2 per cent.

Chronic appendicitis may be dismissed with few words. The mortality in the hands of competent operators is practically nil. Chronic appendicitis is essentially a surgical condition, amenable to correct surgical intervention, and it is by operating on interval cases that the mortality is reduced, as the patient is not endangered by the many complications that may arise in the acute stages.

‡Read before the Southside Virginia Medical Society in December, 1906; submitted for publication March, 1908.

As has been so well demonstrated by Ochsner and others the best results in operating on patients with acute appendicitis are obtained at two periods:

1. Within the first 36 hours of the onset of symptoms, while the infection is still limited to the appendix and its immediate neighborhood.

2. After the 7th day of the attack, when the acute symptoms have subsided and the abscess, if present, is thoroughly walled off. Success in handling this second group of cases is dependent very largely upon properly directed treatment during the acute stage of the infection, and it is the treatment of these cases that it is particularly desired to emphasize in this report.

At the Saratoga meeting of the American Medical Association, Deaver reported 275 cases of acute appendicitis submitted to operation as soon as diagnosed, with a mortality of 13 per cent., and at the same meeting Ochsner replied with a series of 263 cases of acute appendicitis, treated by operation at the selected period in the infection, with a mortality of only 3 per cent. This indeed startled the surgical world. Only last year a New York surgeon presented 143 cases of acute inflammation of the appendix in which operation was performed as soon as a diagnosis was made with a mortality of 17.

The treatment we have pursued in all of our acute cases is practically that advocated by Ochsner, supplemented by the sitting posture insisted upon by Fowler, together with Murphy's continuous normal salt solution by bowel, or under the skin.

The essential points in this treatment are:

1. Absolutely nothing by mouth.
2. No purgatives.
3. No large enemas.
4. Stomach washing, if necessary.
5. Continuous physiological saline per rectum or under the skin.
6. The sitting posture.

What does such treatment accomplish?

1. The prohibition of food, water, cathartics by mouth, and large enemas inhibits intestinal peristalsis, and consequently stops pain and prevents extension of the process by the rest thus secured.

1. Intestinal quiet is furthermore secured by gastric lavage in those cases in which food or cathartics have already been given, or in which nausea and vomiting exist.

3 The salt solution, which is given per rectum only so fast as it can be absorbed, increases the resistance of the patient, favors elimination and quenches thirst by supplying the necessary body fluids, and apparently converts the peritoneum into an excreting surface instead of an absorbing one.

4. The sitting position aids materially in localizing the inflammrtory process. In the large majority of cases it has been shown that the situation of the appendix is bounded as follows: posteriorly, and to the right, by the iliac bone; above, and to the right, by the cæcum; below, by the pelvis; and the remaing unprotected boundary lies to the left where the small intestines come in contact with the inflamed appendix (the starting point of peritonitis). This posture tends to throw the omentum downward which, aptly likened to a policeman, applies itself to the offending organ. It is this manouvre that completes the unprotected boundary. Furthermore, this posture by the result of gravity tends to confine the brunt of the infection to the pelvic peritoneum which, as is well known, gives a much smaller absorbing surface and one which is believed to be less sensitive to infection.

This treatment results, as a rule, in one of two things: resolution, or an encapsulated abscess.

There are two classes of cases in which this treatment is inadvisable, viz., in children and in the aged. In the former it is not applicable because young patients are more or less intractable and hard to control, and because the omentum is underdeveloped while the lymphatics are extremely active. Old people are not good subjects for this treatment because they stand confinement to bed badly, suffer from the withdrawal of nourishment, and the omentum has undergone some retrograde changes. Appendicitis is a disease of young adult life and those beyond middle life are usually exempt. These two classes are practically the only instances in which we depart from our custom of not operating between the 48th hour and the 7th day.

There is one unusual condition, however, that can arise while the patient is at rest, and that is rupture of the abscess. This contingency, of course, demands immediate operation if the abscess ruptures into the abdominal cavity. Fortunately, the large majority of abscesses which rupture do so by breaking into the bowel, which is a happy solution of the problem. Rupture is recognized by cessation of all pain, great restlessness, signs of collapse, abnormal temperature, rapid pulse, and the disappearance of the mass.

The pathology, symptomatology, and diagnosis of this rather common malady are so well known that they will not be discussed in this paper. Attention may be directed to one point, however, and this has to do with the location of the pain and ten-

derness. Pain which is at first generally diffuse with possible increased itensity in the region of the umbilicus, soon becomes localized over the seat of the appendix with associated tenderness on pressure. Now this organ has a tendency to vary so greatly in the situation of its extremity that it has been very appropriately (if not elegantly) likened to a cow's tail in fly time. As the tenderness is found over the inflamed portion of the appendix this sign may be present in the pelvis, to the left of the median line, deep in the right flank, or beneath the live.

This treatment as outlined, can be very effectively carried out by the physician when he is called in to see a case which, in the words of Dr. Richardson, is "too late for the early operation and too early for the late operation." The patient for instance, has been suffering for 24 hours with the family diagnosis of "cramp colic" and has in consequence received the usual household remedies of calomel, salts or oil, more or less nourishment, and enemas. As it is often impossible to get these cases into the hands of the surgeon in time for the early operation they can be almost always tided over the acute symptoms by strict adherence to the method.

Our experience in a large number of acute cases justifies us in advocating most strongly this palliative method of treatment, and it is by this means that we convert "grave conditions into mild ones, and mild ones into interval cases."

It may seem a broad statement to make, but it has come to pass that we no longer feel an utter helplessness in the presence of general peritonitis. In a recent visit to Dr. Mayo's clinic at Rochester, Minn., I was astounded at learning that many cases of general peritonitis in patients nearly moribund recovered from all acute symptoms under this Ochsner, Fowler, Murphy treatment. Previous to the adoption of this method of procedure he had been operating on these cases with a tremendous and discouraging mortality. This surgeon with his enormous clinical experience embracing many hundred cases a year believes that the cases operated on between the 48th hour and the 7th day with recovery will usually on this treatment be carried on to interval cases, or to abscess formation, and that many cases with fatal results would have been converted into these same classes if not operated upon.

By employing the McBurney incision most exclusively we avoid the danger of post-operative hernia, and have shortened our patients' confinement in the hospital and bed from 10 to 15 days, so that during the past year we have saved in actual time to these cases an aggregate of three or four years residence in the hospital.

In closing I would like to call your attention to a case now in hospital. A man seen five days after onset, pulse 130, temperature 101 degrees, nausea and vomiting, facies anxious, abdomen enormously distended, great rigidity and tenderness, complete locking of the bowels for the preceding four days. Upon the above treatment the symptoms rapidly subsided, pulse and temperature returned to normal, and we will now be able to do the interval operation. Formerly we opened these cases, pronouncing them general peritonitis, and usually lost them.

405 East Grace Street.

Intestinal Obstruction Resulting from Circulation Construction by an Elongated Appendix.*

By Edward N. Liell, M. D., Gynecologist to St Luke's Hospital, Jacksonville, Fla.

It is not an uncommon experience to find ourselves surprised by conditions revealed and unfolded in connection with surgery of the abdominal cavity.

Surgical investigation has made evident not only various causes of intestinal obstruction, but has also proven the existence of other abdominal complications, which, in many instances, can be removed at the time.

My excuse for bringing before you the subject of intestinal obstruction is the unique character of the following case: The clinical course, up to the time of my being called in to see the patient, was eight days.

The patient, aged 18 years, was the son of a physician practising in a neighboring state. The earliest symptom was one of abdominal pain, of a griping character, with moderate distension of the small intestine. Various cathartics were used for several days without result; enemata were equally fruitless. Vomiting and reversed peristalsis, first of a bilious character but later stercoraceous, followed. To this was added a rise in the pulse rate and temperature. Two days previous to operation, a diagnosis of probable intestinal obstruction had been made by the attending physician, who then suggested surgical interference. This, however, was refused by the family,—a fatal decision even at this time. Further consultation was then advised, as his condition was a cause for great anxiety. The following day the patient was brought to Jacksonville, and I was called in late that afternoon to see him. His condition was unfavorable; temperature 103; considerable

*Read at the meeting of the Florida Medical Association, held at Ocala, April 15-17, 1908.

distension of the small intestine, none of the large.

A diagnosis of obstruction of the ileum near the ileo-cecal junction was made. Operation was imperative,—a lost opportunity in fact; the father readily consenting to any measure for relief.

Upon opening the abdomen, a loop of ileum near the junction was found strangled by an abnormally elongated appendix, the latter measuring eight inches. Several coils of intestine were also adherent, which were separated, however, with but little trouble. Peritonitic inflammation was evident within the immediate sphere of obstruction, there being marked injection of tissue; a slightly gangrenous condition existed also, which, however, did not warrant resection. After the constricting and adherent appendix was dissected out, ligated and removed, the lumen of the collapsed portion of ileum gradually regained a portion of its natural diameter by manual kneeding of the distended gut.

Post operative measures of treatment were of little avail, the patient's condition previous to operation inducing a failure to respond, death resulting the following day.

The pathological conditions found in this patient's case marks in no uncertain measure the ease with which life might have been saved by early and timely operation. And it furthermore instances the dangers of temporizing, and so-called expectant treatment. The element of success lies in early interpretation, and operation, and thus effective restitution of the integrity of the parts. True, symptoms vary in individual cases, and thus it may be difficult to make an early positive diagnosis. Strongly suspected cases, however, should be given the benefit of the doubt, by exploratory operation. Moreover, it is not of consequence to wait to differentiate between the various forms of ileus. With appreciable symptoms, after ordinary measures for moving the bowels have been resorted to—operate.

One particular point here in the after-treatment. If there be injury to the bowel in the removal of an adherent appendix, or of adherent coils of intestine, rest is an essential element. There should be no effort made, in my optnion, to induce peristalsis within at least 48 hours subsequent to operation.

Finally, the mortality in intestinal obstruction is unduly great because of the difficulty in making an early diagnosis, or a failure to operate early. This may be the fault of the attending physician, or the failure or refusal of the patient or family to accept advised surgical measures until too late.

Treatment of Mastitis with Bier's Suction.

Zacharias (Munch. Med. Woch.) has made use of the suction method of Bier in cases of mastitis treated at the Erlangen Hospital. The production of passive hyperemia through suction apparatus has a wide field in modern therapeutics. The suction hyperemia has the effect of inhibiting bacterial action in the tissues. In the last seven years, at the Erlangen clinic, there have been treated 2,214 labor cases, among which there have been 52 cases of mastitis, that is, 2.35 per cent. Among these cases 63 breasts were treated. Thirty were treated antiphlogistically: ten per cent. had to be incised. Thirty-three were treated by suction; only two were incised, that is, six per cent. The author believes that at the beginning of a case of mastitis this treatment is a sovereign remedy. Only failure in the technique, or beginning the treatment too late, will give unsatisfactory results. In cases which come to the clinic after abscess formation has taken place no benefit will be received. This method enables the mother to continue nursing her child, while under the old system it was necessary to stop nursing and on recovery the milk was gone from the breast. Under this treatment lactation is rather a benefit to the mother. If nursing gives pain the milk can be removed by suction and lactation begun at the end of the treatment. The best method of applying the treatment is to begin as soon as there is any rise of temperature, giving three suctions daily of half an hour each. The child may nurse before the treatment, as otherwise the greater part of the milk is lost. After the temperature has fallen and inflammation disappeared suction is stopped, treatment being needed for two or three days at most. When by the third day the temperature has not fallen to normal we may expect abscess formation. Recurrence took place once, but yielded to application of the same treatment. The bell glasses should be large enough to entirely cover the gland and should not give any pain. In thin patients a little air may get under the bell, and this will give pain, so that some pressure may be needed to keep the bell in contact with the thorax. The bell must be filled gradually with air at the end of the treatment. The treatment should never be put into the patient's own hands to execute.

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EDWARD C. REGISTER, M. D., EDITOR.

CHARLOTTE., N. C.

THE MEETING OF THE NORTH CAROLINA MEDICAL SOCIETY.

The meeting of the North Carolina Medical Society in Winston-Salem, June 16-18, '08, is going to be one of the greatest in the history of the society. There is every reason why this should be true. Winston-Salem is centrally located, easily accessible to all parts of the State, and by reason of splendid railway facilities is within the reach of every doctor in North Carolina. One of the most thriving of all the progressive towns in the State, Winston-Salem cannot be surpassed in its accommodations as far as hotels are concerned. Possessing a faculty of medicine that is composed of some of the finest medical men within our borders, nothing is going to be left undone by them that would contribute to the general success of the meeting or the entertainment of each individual who may attend. The hospitality of old Salem is not greater than the open heartedness of the new Winston. and each physician, whether he be young or old, will find it worth his while to be there, if for no other reason than to get away from the grind of hard work and carping cares at home.

The chairmen of the various sections have for months past been working most energetically and as a result of their labors a very excellent program has been arranged. The subjects already announced, and the list of names of those who will read papers, show that there will be men at this meeting from every part of North Carolina, and men, too, whose reputations guarantee that things will be said and done which will be worth while. Already the secretary reports an unusually large number of responses from those to whom requests for papers have been sent. There will also be a number of doctors from other sections of the country, and, of them it is safe to say, that they will not be present solely to see and be seen. In fact most of these men who are the guests of our State society from time to time contribute articles of genuine worth and helpfulness and bring right home to those who are unable to find time for post-graduate and clinical courses opportunities to see and hear the very best work that is being done in the great medical centers.

But aside from all these things there is yet a better reason why this meeting is going to be a great meeting. More than to any other single thing will its success be due to him who honors and dignifies the office of president of the society. Howell Way is known from the East to the West as a man of ability and learning—a man who does things. As secretary of the society from 1903 to 1906, his boundless enthusiasm and untiring efforts resulted in most phenomenal growth. Upon his accession to that important office the membership was 530; within four years there were over twelve hundred names on the roll. This fact alone speaks volumes for Dr. Way, were it not true that every member of the society is thoroughly familiar with his work. As president he occupies the highest reward in the gift of the Medical Society, and he wears an honor justly earned and well deserved. As presiding officer he is an accomplished parliamentarian, gracefully courteous, wise and impartial in his rulings. The society members know him as a genial, open-hearted gentleman, honest and upright in all his dealings.

In behalf of Dr. Way the Journal bespeaks the co-operation and support of every doctor in the State. Let us all pull together toward making the Society what it ought to be. Let us all go to Winston-Salem with our enthusiasm screwed up to the very highest pitch, with the very best paper we can produce, with a purpose to learn something and to tell somebody else something, with a hearty handshake for every brother, and this will go down in the records of the greatest meeting in our history.

Elsewhere we print the preliminary program sent out by the secretary.

THE ANNUAL CON-JOINT SESSION OF THE STATE MEDICAL SOCIETY AND THE NORTH CAROLINA STATE BOARD OF HEALTH.

The North Carolina State Board of Health was made a fixed fact in the year 1877 largely through the earnest and indefatigable efforts of the late Thos. W. Wood, who became its first executive officer and established the Board upon a permanent basis. The Health Board of North Carolina, like the Medical Examining Board, originated in the minds of, and grew out of the labors, of zealous workers in the State Medical Society. While in many of our sister States these important bodies are organized in different ways, as a rule by designation by the State's Governor, in North Carolina they are bound by the closest ties, being elected by the delegates to the State Society (except a portion of the Board of Health which is appointed by the Governor), and holding their annual sessions at the same time and place. This arrangement is well for each of the two important

Boards, and for the medical profession also. It familiarizes the members of our profession with the work of these two important State Boards, and keeps them, and their members in close touch with the States' medical profession. In conformity with the wise and appropriate precedent established a number of years ago in the early history of our State Board of Health, the Secretary has arranged with the Secretary of the State Society to set apart the special hour of 12 M., Wednesday, during the Society's coming session for the holding of the annual con-joint session of the two bodies. This is well, and we trust to see a large number of the members of the State Medical Society attend this special meeting to hear the annual report of our efficient Secretary, Dr. R. H. Lewis, and to participate freely in the interesting discussions which characterize the con-joint session of the Board and Society each year.

THE INCREASE OF THE ARMY MEDICAL DEPARTMENT.

After passing through a series of sidetrackings, in favor of others, a bill has finally been passed by Congress to increase the efficiency of the Army Medical Department. Hitherto the medical service of the army has been made unattractive because of many things. We are all more or less familiar with conditions which existed during the Spanish American war in which the medical man was utterly powerless to take any steps toward the eradication or indeed the prevention of such camp diseases as dysentery and typhoid fever. He was blocked in every attempt and his orders countermanded by the line officers for no other reason apparently than to keep him under their thumbs. It is evident, however, that better conditions will now exist, and we hope that the mortality statistics of our armies will cease to be a stench in the nostrils of nations.

According to the Medical Record some of the features of the new bill are as follows:

The medical officer becomes a captain in three years instead of five as formerly, and those who enter the army in the next few years will attain the rank of major in a comparatively short time, as they have only one hundred files to make. After the lower grades are filled to their new limit or three hundred, it will, of course, take longer to reach that rank, though even then the promotion will be fairly rapid. As the pay of all officers has been increased by another bill, the young doctor entering the service will now get $2,000 uppon appointment, $2,400 as a captain, $3,000 as a major, $3,000 as a lieutenant-colonel, $4,000 as a colonel, with 10 per cent. increase for each five years' service up to twenty years, though the maximum pay of majors is limited to $4,000, lieutenant-colonels $4,500 and colonels $5,000. This is not unattractive in view of the fact that a house, light and fuel are supplied to all, and horses when needed by captains and lieutenants, and that there is a retired pay of 75 per cent. if disabled.

The new bill creates a Medical Corps, which, with the Hospital Corps, Nurse Corps and Dental Surgeons, constitutes the Medical Department. All the old absurd titles are abolished, and the medical officers are legally given the titles of their rank like other officers.

It has, however, not been possible by any means to give the medical officer any authority. He has no complete control over the management, discipline and inspection of hospitals which are occasionally dreadfully handicapped by the interference of line officers who are ignorant of the needs.

It is something, however, to have gained a single point, and in time public opinion must exercise a powerful influence toward the further iucrease of the efficiency of this branch of the service.

UNIVERSITY COLLEGE OF MEDICINE CLOSES.

The commencement exercises of the University College of Medicine, Richmond, Va., were held May 17 to 19 inclusive. The baccalaureate sermon was delivered at Seventh St. Christian church by the Rev. H. D. Maclachlan. Monday was devoted to the meeting of the Board or Trustees at 4:30 p. m. The meeting of the Alumni Association was held in the amphitheatre of the college at 8:30 p. m., in connection with which reunions of the classes of '95 and '98 were held. At this meeting the following gentlemen responded.

President McGuire Newton, M. D.; E. G. Brumback, M. D., Luray. Va.; L. L. Dameron, D. D. S., Newbern, N. C.; R. H. Woolfolk, Jr., Ph.G., Richmond, Va.; Clarence Porter Jones, M. D., Norfolk, Va. (class of '95); A. L. Lynes, Fishersville, Va. (class of '98); W. H. C. McGehee, D. D. S., M. D., Richmond, Va. (class of '98); G. E. Barksdale, M. D., Ph.G., Richmond, Va. (class of '95); E. L. Brandis, Ph.G., Richmond, Va. (class of '98).

Following the Alumni Association a delightful reception was tendered the graduating classes by the President, Dr. Stuart McGuire, at his residence.

On Tuesday 19th, the Alumni Association gave a smoker at 1.30 p. m., at the Hermitage Golf Club. and at 7:30 the commencement exercises proper took place at the academy of music. Dr. J. Gray McAllister, president of Hampden-Sidney Col-

lege, was the orator of the evening. He was introduced in a most happy manner by Dr. McGuire who also spoke eloquently of the year's work of the College and its allied interests and management, and of the character of the graduating classes.

Dr. McAllister's speech was a happy mixture of the light and serious things which go to make up the career of the ideal physician from the layman's viewpoint. Frequent applause indicated how admirably the spirit of the theme was caught.

There were forty-two graduates in the department of medicine; thirteen in the department of dentistry and twelve in the school of pharmacy, making sixty-seven in all. One woman among this number received a diploma for having completed the course in pharmacy. She is Miss Maud Lambert of Roanoke, Va., and is said be the second in Virginia to win this distinction.

After the graduating exercises a reception was given by the faculty at the Westmoreland Club and the session of 1907-'08 became only a matter of history.

WATER AND DISEASE.

The vast importance to the public of a pure uncontaminated drinking water is coming to be recognized more and more by the public, and the demand is made in every up-to-date city for a watchful care on the part of officials to prevent the spread of disease by this means. It is well known, although not easily proven, that certain diseases, like typhoid fever, have for their chief mode of transmission the water which is used for drinking purposes. At the recent convention of Governors at Washington, Dr. G. M. Kober, Professor of Hygiene in Georgetown Univerity, delivered an address which is worthy of the attention of the whole country. As a practical example of the effect of water transmission he cited the case of Washington, D. C., in which the typhoid germs were undoubtedly carried a distance of 134 miles by the Potomac River from Cumberland. He showed that an epidemic at the latter place was followed by a serious outbreak of typhoid fever in Washington, and that the water of the river below Cumberland was loaded with typhoid germs. It is a matter of considerable interest to note the intelligent appreciation of an article of this kind on the part of the lay press of the country. The Montgomery Advertiser comments on it as follows;

"Polluted water from one city may form the water supply of another city on the same stream and infest those who drink it with deadly disease germs. Each year this becomes a matter of more vital importance in this country and shows the intimate relation between drinking water and human health. There appears to be put two remedies for this evil. One is to supply cities with pure artesian water where it is possible to do so, and when this cannot be done the water should be filtered thoroughly or otherwise cleared of all disease germs. That pure drinking water means a minimum of some of the most dangerous human diseases is now an established fact."

MEDICAL COLLEGE OF VIRGINIA.

The commencement exercises of the Medical College of Virginia were held in Richmond, May 17 to 20 inclusive. The programme was elaborate and the graduating class found their time well taken up. Rev. J. N. Latham delivered the baccalaureate sermon on Sunday, May 17, at Centenary Methodist church.

At a meeting held on Wednesday afternoon, May 20, the alumni association elected the following officers for the year: President, Dr. W. C. Barker, Buchanan, Va.; First Vice-President, Dr. W. E. Evans, Noland, N. C.; Second Vice-President, Dr. L. B. Burke, Petersburg, Va.; Third Vice-President, Dr. H. B. Mahood, Emporia, Va.; Secretary, Dr. McCaw Tompkins, Richmond, Va.; Assistant Secretary, D. D. Talley, Jr., Richmond, Va.; Treasurer, Dr. F. H. Beadles, Richmond, Va.

The graduating exercises were held Wednesday evening at 8:30 o'clock in the Academy of Music. The orator of the occasion was Capt. Joshua F. Bullitt of Big Stone Gap, Va.

Capt. Bullitt, a lawyer of wide reputation and a distinguished orator delivered a most eloquent address. Taking for his subject "The Expert Witness," he said among other things, "that any doctor who did not have the moral courage to give an honest opinion should be tarred and feathered. Further discussing this important point, which brings the medical and legal profession in such close touch, he declared that no doctor should allow himself to give an opinion if he is in any way interested. Any honest man, he told them, could say what he knew to be right, but few when interested could give unbiased opinions. In this connection he said that no man should be paid by either side for expert opinions, but that he should be selected by the court and paid by the State."

Fifty-five young gentlemen received the degree of M. D. The Department of Dentistry had three graduates. and the Department of Pharmacy seven. Degrees were conferred and diplomas awarded to these along with the medical graduates.

Dr. Christopher Tompkins, dean of the faculty, after reviewing the progress of the

school during the past year, announced the election of Dr. Greer Baughman, a graduate of the school, to fill the chair of pathology, bateriology, histology made vacant by the resignation of Dr. Ennion G. Williams who has accepted the position of State Health Commissioner.

Graduates of the college have received hospital appointments as follows:

To Memorial Hospital—Dr. W. R. Wallace, Dr. E. C. Register, Jr., Dr. I. W. McDowell, Jr., Dr. G. M Naff, Dr. S. E. Massey, Dr. J. A. Tyree.

To Retreat for the Sick—Dr. M. S. Trent.

To City Home and Hospital—Dr. H. F. Hoskins, Dr. F. G. Scott, Jr.

To St. Vincent's Hospital, Norfolk, Dr. W. L. Cowles.

To Protestant Hospital, Norfolk—Dr. F. G. Bell.

To Orthopedic Hospital and Infirmary for Nervous Disease, Philadelphia—Dr. Cecil Garrenton.

To St. John's Riverside Hospital, Yonkers, N. Y.—Dr. G. A. Ezekiel.

DR. HODGES, THE ORATOR.

The people of Charlotte, N.C., have seldom had the privilege of listening to so magnificent an address as was delivered on the evening of May 19, before the graduating class of the city graded schools by one of North Carolina's most distinguished sons, Dr. J. Allison Hodges, of Richmond, Va. Not only as a physician has Dr. Hodges won fame, but also as a speaker and a man of the finest literary tastes. He is known in Virginia as the "silver-tongued" and he does not fail to ornament any occasion upon which he is heard whether it be scientific, social or otherwise. As proprietor and physician of the Hygeia Sanatorium in Richmond, he has established an enviable reputation second to none in the South, and indeed no privately owned hospital devoted exclusively to medical cases surpasses the Hygeia. Dr. Hodges has many friends throughout the State, but none are prouder of him and of his success than those who live in Charlotte, and North Carolina is honored in calling him her son. He never fails to reiterate his love for the Old North State, and whatever honor has come to him through fortune's chance he says "I lay as a reverential token at the feet of my foster-mother, North Carolina."

In his recent speech in Charlotte his general theme was the South, and with beautiful word-pictures he drew the attention of hi audience and held it without evidence of tire or weariness. The transfiguration which has come across the face of the South and the special characteristics which mark its citizenship were the two distict features of his general subject to which attention was drawn. The people were unstinted in their expressions of admiration concerning his address.

ANTI-TUBERCULOSIS LEAGUE.

Dr. Walter Cheyne, the very efficient and popular secretary of the South Carolina Medical Association, has furnished the names of the physicians, one from each county in South Carolina, constituting the committee on formation of the Anti-Tuberculosis league of the State Medical Association. This league is the authoritative and professional organization which will take the necessary steps to suppress the spread of tuberculosis in South Carolina.

Each of the physicians below named, who have been appointed by Dr. John L. Dawson, chairman. under authority in him vested by the State Medical Association, will supervise the proper organization in each county under scientific and professional supervision as the representatives of the State Medical Association.

This committee on formation of this important league will at the proper time in response to the call of the chairman meet to organize.

Committee on Formation: Dr. John L. Dawson, chairman; Dr. G. A. Neuffer, Abbeville; Dr. W. A. Nardin, Jr.' Anderson; Dr. Filmore Moore, Aiken; Dr. T. T. Cleckley, Bamberg; Dr. R. C. Kirkland, Barnwell; Dr. W. R. Eve, Beaufort; Dr. B. B. Steedly, Cherokee; Dr. Frank Lander, Chester, Dr. T. E. Wannamaker, Jr., Chesterfield, Dr. W. M. Brookington, Clarendon; Dr. W. A. Kirby, Colleton; Dr. William Eggleston, Darlington; Dr. F. Julian Carroll, Dorchester; Dr. R. A. Marsh, Edgefield; Dr. Samuel Lindsay, Fairfield, Dr. B. G. Gregg, Florence; Dr. W. M. Gaillard, Georgetown; Dr. Davis Furman, Greenville; Dr. C. P. Neal, Greenwood; Dr. C. A. Rush, Hampton; Dr. J. A. Norlan, Horry; Dr. J. W. Corbett, Kershaw; Dr. T. L. W. Bailey, Laurens; Dr. C. W. Harris, Lee; Dr. C. W. Barron, Lexington; Dr. A. M. Brailsford, Marion; Dr. W. J. Crossland, Marlboro; Dr. P. C. Ellison, Newberry; Dr. E. A. Hines, Seneca; Dr. L. C. Shecut, Orangeburg; Dr. W. A. Tripp, Pickens; Dr. A. Earle Boozer, Richland; Dr. E. B. Frontis, Saluda; Dr. G. A. Bunch, Spartanburg; Dr. L. M. Parlor, Sumter; Dr. D. H. Montgomery, Union; Dr. Y. B. Durant, Williamsburg; Dr. R. A. Bratton, York.

Perhaps the most important work done by the State Medical Association at its last meeting was the inauguration of this systematic and intelligent warfare against tuberculosis. While nothing has as yet been

actually accomplished beyond the preliminary steps towards organization, nevertheless the fact that the physicians of South Carolina have agreed to go into a campaign of education in which the masses of the people are to receive free instruction in the methods of preventing the spread of this disease will, we feel sure, be received with gratitude and unusual interest by the people of South Carolina.

Dr. Mary R. Baker, who was elected a member of the State board of medical examiners from Columbia, has resigned from that board. This appointment of Dr. Baker was made to fill out a prospective vacancy caused by the election of Dr. William M. Lester, with his consent, as a member of important board of medical examiners on the State health board. Dr. Mary Baker having declined to serve, and there being no legal way in which a vacancy can be filled on this board except by election of a member by the State Medical Association, it was a problem how to fill out the board. As the State board of examiners is to meet about June 1, it was decided to hold up the commission of Dr. Lester, with its consent, as a member of the State board of health until after the June meeting of the board of examiners. Dr. Lester will then resign from the examining board and a vacancy will then remain until the next State Medical Association meeting in April 1906. In the meantime the examining board does not hold but one meeting a year, the next meeting after Dr. Lester's resignation being in June, 1909, and the seven remaining examiners can attend to the business until that time.

The State Medical Association of South Carolina is in fine condition. The membership is increasing and is doing enthusiastic and splendid work. Dr. S. C. Baker of Sumter, is the present president of the association and has for years taken a very active part in building up the State association. He will keep up the interest among the members and turn his office over to his successor with a record that it will require pace to keep up with.

CRUSADE AGAINST FLIES.

The New Orleans Board of Health are taking active measures toward beginning a crusade against the common pest—the house fly. The disease-bearing mosquitoes are a constant menace and since the epoch making discovery of the Yellow Fever Commission, the authorities of New Orleans have been unrelenting in their warfare against these insects. But now the fly is coming in for his share of the municipal attention. It is a fact that flies are an index to the sanitary conditions amid which people live. As a rule people look upon them as a necessary and unavoidable evil, but, aside from the annoyance caused by their presence, no great concern is felt about them. As a matter of fact, however, flies play no insiderable role in the transmission of certain infectious diseases and this fact should be impressed upon people. The contamination of foods and cooking and table utensils by the filth carrying fly is universal, yet people are prone to disregard what is not perfectly evident to the sense of sight. About the household it is the kitchen and dining room that most need protection, for as all know it is here that flies most abound, and here human food becomes contaminated before it is eaten. In view of these facts the chairman of the New Orleans Board of Health, Dr. W. T. O'Reilly, has succeeded in getting the board to prepare an ordinance to be submitted to the City Council making the prompt removal or destruction of certain filth compulsory. An ordinance is also suggested providing for the screening of typhoid patients, and lastly the screening of markets and grocery stores. It was recommended that the matter of flies in the house be left to the people themselves. Dr. O'Reilly says:

"In the absence of coercive measures, the people, once awakened to the danger which lurks in flies, will learn to protect themselves, making purchases preferably where the insect is least in evidence. They will preferably buy from the progressive butcher with screened stall, from the confectioner who carefully protects his cakes and other delicacies by screen and fan, from the baker who chooses to deliver his bread in sealed paper cover, etc. People will learn that it costs no more for clean than dirty food, and frequently less, by the avoidance of druggists' and doctors' bills."

This ordinance is entirely practical and worthy of the consideration of many other towns and cities. Reduced to its simplest termes, all that is necssary is the thorough removal of filth, and particularly the accumulations about stables. Just so long as this is allowed to exist, flies will plague the human race.

THE DIAGNOSTIC VALUE OF NEGRI BODIES IN HYDROPHOBIA.

The exact significance of the Negri Bodies found in the nerve cells of animals which have been the victims of hydrophobia has not yet been settled. These so-called cell inclosures, whatever their exact nature, at least possess a distinct diagnostic value. Some authorities consider that they are not micro-organisms or parasites, but are due to certain alterations or degenerations in the cell protoplasm caused by

the action of the specific toxins of the disease. Others believe that these bodies are the active causative agents of rabies. In 1867, Hallier, and subsequently Polli, and then Bouchard, described micro-organisms which they found in the blood and saliva of rabid animals. Roux, Fal and Gibier also found cocci in the nerve cells of the nuclei, of the bulb and other parts of the central nervous system. Hoen, of Richmond, Va., believes that the bodies described by Gibier, previous to 1900, are identical with those described by Negri at the Medical and Chirurgical Society at Pavia, in 1903. Negri classed these cell inclosures as protozoa and considered them as the specific cause of rabies. Whatever their real nature they were found by him particularly in the cells of the Cornu Ammonis, in the Purkinje cells of the cerebellum, and in the cells of the nuclei of the pons, medulla and cord.

Dr. A. G. Hoen, director of the Pasteur Institute at Richmond, Va., also finds these negri bodies with great constancy in these cells. He has had abundant opportunity to study them and the results of his work published in the Bulletin of the University College of Medicine are highly valuable and interesting.

Negri bodies vary in size from the minutest dot, barely visible with the best immersion systems, to that of a human red blood cell. Their shape is most often round, though oval and elongated forms are fairly frequent. Their periphery is sharply defined, and presents a double refracting contour in which there seem to be no evidences of fissuring or other irregularities.

In the structureless forms the matrix of these inclosures appears as a perfectly homogeneous substance, which possesses a decided selective affinity for the anilin dyes, with some of which it stains brilliantly and with metachromatic reaction.

Many of the larger bodies or inclosures, particularly those found in the large cells of the Cornu Ammonis, present distinct internal structure, consisting of numerous minute granules apparently imbedded in small so-called "vacuoles" in the matrix and arranged in a more or less concentric and regular manner around a larger granule. These granules seem to possess double staining properties, showing, with specially prepared Azur-Eosin stains a minute dark-blue central portion surrounded by a pink or reddish violet zone. This double staining property or metachromatism may be noticed by careful adjustment of the microscopic focus and illumination, as well in the solitary and minute dot-like inclosures as in the granules of the larger and more complicated structures.

Occasionally a hyaline body appears to contain a denser central portion, staining somewhat more intensely than the periphery, suggesting the possible presence of a nucleus.

The favorite location of these bodies in the nerve cells, in the protoplasm of which they are sharply outlined, is near and usually to one side of the nucleus of the cell, though they may occupy a position near the insertion of the axis cylinder or far out in one of the protoplasmic processes.

When found in the latter part of the cell they are always of an oval or elongated shape, suggesting a plastic nature of their substance in adapting themselves to conditions of environment.

Dr. Hoen has never noted the presence of these bodies in the neucleus of the nerve cell, although he has seen them in such close proximity to this part of the cell as to visibly indent it. Nor have they ever been observed extra-cellularly, either in the neuroglia or other tissues of the nervous system.

He concludes that "the presence of these cell inclusions, or "Negri Bodies," is as certainly diagnostic of rabies as is Koch's bacillus of tuberculosis, Neisser's gonococcus of specific urethritis or Laveran's protozon of malarial fever," and considers it not only useless, but also a needless sacrifice of animal life to employ the biological test when these cell inclusions can be demonstrated in any portion of the central nervous system of an animal which has been relegated to the laboratory for the diagnosis of rabies.

UNITED STATES MORTALITY STATISTICS.

The mortaltty report for 1906, recently issued by the Census Burea shows a slight improvement in the death rate over previous years. The "registration area" includes approximately one-half the total population of the United States, but unfortunately none of the Southern States are in this area. And while the statistics no doubt give a fairly accurate basis of knowledge of the mortality, still it is unfortunate that every State in the Union cannot be included. The data of the years 1902 to 1905 are given as comparative. For 1906 the death rate per 1,000 of population was 16.1, the corresponding rate for 1905 was 16.2, and between 1901 and 1905 the average was 16.3.

Comparison of the death rates of this and other countries at the present time with that of the same countries for the last century shows that while the former death rates were upward of 25 per 1,000 of population, the tendency now seems toward an annual death rate of about 15 per 1,000 or less.

The diseases to which 20 or more deaths per 100,000 of population were attributed in 1906, are as follows:

Tuberculosis of lungs	159.4
Pneumonia (including bronchopneumonia)	149.0
Heart disease	130.7
Diarrhœa and enteritis	122.9
Violence	129.8
Bright's disease and nephritis	99.8
Apoplexy	71.8
Cancer	70.8
Premature birth	34.8
Old age	34.3
Congenital debility	34.2
Typhoid fever	32.1
Bronchitis	30.3
Diphtheria and croup	26.3
Meningitis	25.6

For the first time distinction of color is shown in these reports for those areas whose population is 10 per cent. or over colored. For the cities in such areas it is found that the death rate of the white population for 1906 was 17.2 per 1,000, and that of the colored population was 28.1, or more than 60 per cent. higher.

The diseases causing a much higher mortality rate among the colored than among the white are pulmonary tuberculosis, pneumonia, whooping cough, malarial fever, and typhoid fever; those causing a much lower mortality rate are scarlet fever, cancer and diabetes.

Elsewhere in these pages comment is made on the wide prevalence of cancer and the immense mortality from this disease. From the above statistics it is apparent that for the whole registration area, in which are included over 40,000,000 people, the death-rate from cancer is almost half that from tuberculosis. That the disease is on the increase is also shown by the census report. The State showing the highest death rate from this cause is California (92), while New Jersey is lowest (66.1). Boston has the highest mortality of all the cities in the registration area. Here the deaths from cancer reached the maximum of 100.0 per 100,000 population.

LOUISIANA MEDICAL SOCIETY.

The twenty-ninth annual meeting of the Louisiana State Medical Society was held in Alexandria, La., May 12, 13 and 14 inclusive. On the morning of the 12th the Society was called to order by the President, Dr. Oscar Dowling, of Shreveport. Prayer was offered by Rev. Father L. Menard, after which Dr. G. M. G. Stafford, President of the Rapides Parish Medical Society, delivered the address of welcome. Dr. Stafford said:

"We deem it no small honor to be enabled to entertain so distinguished a gathering as the medical profession of Louisiana."

"We want this meeting to be a success not only from the standpoint of work accomplished, but also from that of pleasure and enjoyment to each individual member. We hope that this meeting will prove beneficial from another standpoint; that by cooperation, we may be enabled to devise means for the betterment of the profession and the protection of our rights, for there is today no class of men so little appreciated and so poorly paid for their labors as the physician.

"In union there is strength. We should see that every legal practitioner of medicine in Louisiana becomes a member of this Society, and by our united efforts overcome this narrow-minded, ill-deserved prejudice to our labors in behalf of the public health. I wish to assure you gentlemen that the medical men of Rapides parish are ready and willing to lend a helping hand for the general upbuilding of the profession and the enactment of such legislation as will redound to the public good and the protection of our own rights. You have but to sound the tocsin of battle, and we will be among the first to reach the firing line."

Dr. Stafford then assumed the chair, and President Dowling read his annual report, which was quite lengthy and showed much progress in the work of the Society and a large increase in membership. Dr. Dowling said a serious obstacle to the Association is the indifference of a large number of the profession who fail to answer letters sent them for information. An appeal was made to the profession to come forward and assist in the work that is being carried on.

The report contained a number of recommendations, one of which was the consolidation of the Board of Medical Examiners and the State Board of Health.

The reports of the Secretary, Dr. P. L. Thibaut, and the Treasurer, Dr. Jules Lazard, were read and adopted.

The reports of Dr. E. J. Gramer, Chairman of the Board of Councillors, and the same gentleman as councillor for the Fourth Congressional District, and Dr. R. O. Simmons, councillor for the Seventh Congressional District, were read and received.

A great many very interesting and valuable papers were read and discussed with considerable enthusiasm. Among those who presented papers were Drs. R. H. Blackman, J. D. Weis, J. T. Halsey, of New Orleans, Frank Watson, J. B. Elliott, Roy M. Vanwort, Lazard, Allen, Eustis, Simon, McShane, Horner Dupuy, Thornhill, J. A. Storck and S. K. Suvin, Bass, Chassaignac, and Guthrie.

The following nominating committee for

the selection of the Society officers was appointed: First District, Arnade Granger, W. H. Seaman. Second District, J. B. Guthrie, H. B. Gessner. Third District, A. Landry, J. P. Duhon. Fourth District, J. L. Kimball, L. Abramson. Fifth District, J. M. Barnie, I. J. Newton. Sixth District, W. D. Harrelson, R. C. Kemp. Seventh District, J. L. Wilson, G. M. G. Stafford.

On the afternoon of the 13th at one o'clock the Society was carried in a body to the Louisiana Hospital for the Insane at Pineville where in response to the invitation of the Superintendent Dr. George A. B. Hays and his good wife the members, one hundred and sixty strong, were delightfully entertained at luncheon and were given the privilege of witnessing a drill by the Rapides Rangers, composed of inmates of the institution, under command of Capt. F. A. Smith of Monroe.

Upon their return to Alexandria the afternoon session was continued during which a number of entertaining papers were read and discussed.

At the night session President Dowling delivered his annual address. Robert A. Hunter, of Alexandria, also delivered an eloquent address.

On the final day of the meeting the chief business transacted was the election of officers which resulted as follows:

Dr. E. Denegre Martin, of New Orleans, president; Dr. J. B. Hargrove, Natchitoches, first vice-president; Dr. C. J. Gremillion, Alexandria, second vice-president; Dr. John Callan, New Orleans, third vice-president; Dr. E. M. Hummel, New Orleans, secretary; Dr. C. C. Bass, New Orleans, treasurer.

Board of Councillors—Dr. P. E. Archinard, New Orleans, First Congressional District; Dr. E. J. Graner, New Orleans, Second Congressional District; Dr. Allen Eustis, Abbeville, Third Congressional District; Dr. J. L. Scales, Alden Bridge, Fourth Congressional District; Dr. E. Dunbar Newell, St. Joseph, Fifth Congressional District; Dr. C. N. Sitman, Greensburg, Sixth Congressional District; Dr. R. O. Simmons, Alexandria, Seventh Congressional District.

The Society unanimously decided upon New Orleans as the place for the next annual meeting which will be held in May, 1909. After being royally entertained at a banquet given by the Rapides Parish Medical Society on the night of the 14th the members left for their homes greatly pleased with the hospitality of the people of Alexandria.

VIVISECTION AGAIN.

The problem of the regulation of vivisection continues to occupy a large share of public attention. A strong sentiment has grown up against the practice and there are people who are directing most strenuous efforts toward having it abolished entirely. Only recently The London and Provincial Anti-Vivisection Society, through its secretary, Mr. Sidney Trist, issued an English edition of the work of an American, Dr. Albert Leffingwell, dealing plainly and impartially with the subject of vivisection and its abuses. The author, who discloses perhaps less bias and prejudice than may be observed in some other writers on the subject, argues more for restriction than for prohibition.

To most physicians it is a matter with which the public has no concern. Society trusts its sick and dying members to the medical profession; can it not with equal confidence leave the lower animals to the same care? The opinion of the general public is, therefore, divided and confused. On the one hand, it is profoundly desirous to make systematic and needless cruelty impossible; yet, on the other, it can not but hesitate to take any step which shall hinder medical education, impede scientific discovery or restrict research for new methods of treating disease.

Admitting the benefit of the demonstration of scientific facts, how far may one justifiably subject an animal to pain for the purpose of illustrating a point already known? It is merely a question of cost. Granting all the advantages which follow the demonstration of certain physiological facts, the cost is painful sometimes amounting to prolonged and excruciating torture. Is the gain worth this?

A MODERN CLINICAL LABORATORY IN CHARLOTTE.

The modern practitioner of medicine, particularly those who have begun their practice within the past ten years, have learned the immense value of the clinical laboratory as an aid to the complete understanding of pathological states. He looks upon the laboratory not as a court of last resort to which an appeal may be made when all other methods have failed, but rather as a routine procedure, he applies up-to-date clinical tests, the results of which considered along with symptoms and physical signs enables him to make an accurate and positive diagnosis. Medicine has thus made a long step towards becoming the exact science its devotees believe it will eventually come to be.

This rapid advance in laboratory methods in clinical diagnosis during the past decade, has made it imperative that the general practitioner, who for lack of time or equipment is unable to do his own work, be in

touch with some reputable laboratory, to which he may send his specimens.

The North Carolina Medical College, at Charlotte, realizing the demand for this sort of work throughout the Carolinas, has established thoroughly equipped laboratories in the College Building at Sixth and Church Streets, and is now prepared to do this work.

The laboratories are under the care of Drs. R. H. Lafferty, C. N. Peeler and Wm. Allan. They are prepared to make examinations of urine, feces, sputum, stomach contents and blood, applying chemical, both qualitative and quantitative, and microscopical tests when necessary. Bacteriological methods and analysis of all body secretions and excretions, of milk and water will be carefully and accurately carried out. The very latest methods of serum therapy and opsonic technic are in charge of one of the above named who has had a long and valuable experience in this work. Communications addressed to the Department of Laboratories, North Carolina Medical College, Charlotte, N. C., will receive prompt attention.

ARTIFICIAL FEEDING OF INFANTS.

Just at this season of the year, when enteric troubles in both old and young bring no little worry to the physician, the ever perplexing question of proper feeding assumes especial importance. Particularly in the case of infants does this problem add to the difficulties of the practitioner. Suggestions are always welcome, yet in a great many instances the articles which one finds in medical periodicals are so technical and require such elaborate calculations for their proper applications that they are highly impracticable and frequently impossible to the man outside of well-equipped institutions. Too often, indeed, these articles are prepared by those who have no genuine knowledge beyond the theories elaborated from laboratory observations, and when one attempts to put them into practice disappointment is the result. What are needed are simple practical suggestions which are not mere theories and are not beyond the ability of the man who practices in the backwoods to employ. Such an article we find in the April number of the Bulletin of the North Carolina Board of Health. The Secretary, always alert to the general well-being of the State, has selected an article giving "General Directions for the Artificial Feeding of Infants" by Jas. W. Scherescheswsky, of the United States Public Health and Marine Hospital Service. Instructions are given as to the feeding of children under one month, one month old or over, and after the seventh month. Cow's milk is the food to be used and the best methods of modifying, sterilizing and pasteurizing are given. Under three months sterilization of milk is advocated, after this pasteurization should be substituted until the eighth or ninth month, and then provided the weather be cool, the milk reliable, and no digestive disturbances be produced raw milk may be used. The objection that sterilized milk often causes scurvy in infants is discussed, the reasons why this occurs is shown and the means by which this objection may be overcome are given. Every physician in North Carolina should, if he has not already done so, read this paper. It is practical and helpful. That portion giving "precautions to be observed in the artificial feeding of infants" would be most helpful to mothers and nurses who must carry out the doctor's instructions.

PLAGUE IN INDIA.

Great Britain has fought many battles, but none have been more hopeless than that now being waged in India against the Plague. The frightful mortality from that disease goes on in the face of all attempts to combat its ravages. The English Governor, Sir George Clarke, has recently issued a proclamation informing the people that seven thousand people are dying from plague in the Bombay presidency alone every week, and calling upon them to submit themselves to inoculation with the anti-plague serum—the only means of defense hitherto discovered. The people do not heed—a few come to be inoculated and they get six-pence each to tide them over the two or three days' illness which results. The theory that rats play the part of disseminators of the plague has been so well proven that the government has put a price on the rodents. A fraction of a farthing a head is paid and in Bombay 25,000 rats have been bought.

These pests exist in enormous numbers in the native houses. They are infested with fleas. When the rat dies the flea leaves the carcass for a living body. In this way the people become infected with the contagion which the flea carries from the rat. The little gray squirrel which swarms everywhere is quite as great a favorite for the flea as is the rat. This animal is held responsible for transmitting the disease also.

It is a fight not only against the disease but against prejudice, superstition, caste and unbelief. The natives do everything to balk the work of those who would stamp out the disease.

It is said that there is a marked difference in the degree of susceptibility manifested by the different castes. The Brahmin offers the least resistance, a fact ac-

counted for by those who observe the disease by the strictness with which they adhere to vegetarianism. On the other hand the lowest or "sweeper" caste who will eat anything show the most recoveries. Perhaps this may be accounted for by the natural hardihood of the laboring class as contrasted with the natural tendency of all highly organized and sensitive beings to collapse under fever.

STANFORD E. CHAILLE.

We believe that a man should not spend a life of service and great deeds to be honored and rewarded only after he has passed beyond the knowledge of human appreciation. The effort, therefore, on the part of certain alumni of Tulane University to recognize the fifty years service of the distinguished Prof. Stanford E. Chaille, who will soon retire from the deanship and faculty of the Medical Department of Tulane, is thoroughly commendable and should receive the hearty support of every one who believes in the justice right.

His retirement after his long years of service was fittingly celebrated by a jubilee held under the auspices of the Tulane Alumni Association on May 20th. A long and interesting program was arranged and various men of eminence delivered addresses on different phases of the work done by Dr. Chaille. A short sketch of his history is herewith appended taken from the "Physicians and Surgeons of America":

He was born July 9, 1830, in Natchez, Miss. The Chaille family as early as 1596, and for many years thereafter, gave to Poitiers, France, many mayors and other officials. In 1650 Pierre Chaille, the head of the American branch of the family, escaping from the religious persecution following the repeal of the "irrevocab's edict of Nantes," took refuge in England, where he was naturalized. About 1700 he settled in Boston, Mass. His great-great-grandson was William Hamilton Chaille, the father of Dr. Stanford Emerson Chaille, who emigrated to Natchez, Miss., in 1819.

Dr. Chaille was educated under private tutors until his mother's death in 1844, she having appointed her husband's dearest friend and her son's godfather as her son's guardian. To him, who proved to be a faithful and beloved second father, the son was sent. He entered Phillips Academy, South Andover, Mass., in 1844, and was there graduated in 1847. He was a student at Harvard College 1847-50, received the degree of A. B. in 1851 and A. M. in 1854. He began the study of medicine in 1851 at the medical department of the University of Louisiana (now Tulane University) and was graduated in 1853. In 1860-61 Dr. Chaille was a student in Paris in the laboratory of Claude Bernard, then the world's most eminent physiologist. He renewed his studies in Paris in 1866-67.

Dr. Chaille was a private of the New Orleans Light Horse, 1861-62; acting surgeon general of Louisiana, Feb. 17 to May 1, 1862; surgeon and medical inspector of the Army of Tennessee, staff of Gen. Braxton Bragg, May 12, 1862, to July 24, 1863; surgeon in charge of Fair Grounds No. 2 Hospital, Atlanta, Ga., 1863; surgeon in charge of Ocmulgee Hospital, Macon, Ga., 1864-5, when he was captured and paroled. He returned to New Orleans in September, 1865, and was chosen dean of the medical department of Tulane University of Louisiana, March 31, 1885.

Chiefly to Dr. Chaille, as chairman of the committee on State medicine in the Louisiana State Medical Society, is due the clause in favor of State medicine in the Louisiana Constitution of 1879, and also several laws enacted by the State. He has been familiar with yellow fever epidemics since 1850, and studied the disease in New Orleans for many years when it prevailed annually.

Dr. Chaille is an honorary member of the College of Physicians, Philadelphia; of the Medical and Chirurgical Faculty of Maryland; of the Academy of Medical Sciences, Havana, Cuba, and of the Louisiana Pharmaceutical Association. He is a member of the American Public Health Association, American Medical Association, Louisiana State Medical Society, Orleans Parish Medical Society, Louisiana Educational Association, New Orleans Auxillary Sanitary Association, Sons of the American Revolution, etc.

A movement has been started by members of the alumni for the establishment of a memorial. This it is proposed shall be in the form of a chair of physiology or hygiene. For this purpose a Chaille memorial fund will be created to memorialize the retirement of the dean and to perpetuate his name. It is suggested that funds acquired by the successful issue of the movement might be invested in a dormitory for medical students, and the revenue employed for the support of the chair established.

STOKES-ADAMS--HEART BLOCK.

The disease now recognized as Stokes-Adams disease and so named by Hucherd in honor of the two investigators who first described the indications, has recently been accorded much interest and study, especially during the past few years, has the pathological condition been recognized and elucidated by various pathologists and clinicians.

The symptoms that especially characterize heart block are Bradycardia, Syncope or convulsions, at times of an epileptoid form, and an increased venous pulsation, noticed especially in the veins of the neck.

Taking the discovery of His of the bundle of muscles connecting the right auricle and its valves to the interventricular septum with the pecullar effect that may be produced under experimentation, strong proof prevails of the influence of this muscular display pathologically in producing the Stokes-Adams syndrome. A number of workers, especially Redzer, Bruening, Humbolt and Herring in 1904 confirmed the existence of the bundle, its physiological properties and its exact anatomy (American Jonrnal of the Medical Sciences Jan. 1907).

It is now known or believed definitely that the rythmic action of the heart is controlled by the muscle cells independently of the central nervous system. Brubaker in his Physiology says: "The heart muscles possess conductibility. The excitation process and subsequent contraction wave both of which takes their rise under physiologic conditions near the vena cava termination are conducted over the auricle, thence to the ventricles from base to apex.

The etiology of this disease was until a few years ago, little understood; as Stengel says in his article in American Journal of the Medical Science, in 1905: "The experiment of Gaskell, His, Tigerstedt, Erlanger and others practically establish the fact that experimental heart block and the phenomena of Stokes-Adams disease are identical; up to the present communication (1905) however, no case has been observed pathologically in which a lesion has been found involving the bundle of His."

Stengel's case showing sclerotic formation on that muscle, being first on record. Previous to this record numerous theories have been proposed as the cause of heart block in the human being, practically all have been without pathological basis.

Ashton, Norris and Lavenson,[1] says: "From the recent work in the physiology and anatomy of the heart, we now have every reason to believe that a definite anatomical lesion involving the Bundle of His is responsible for this condition in man."

This view of Stengel of 1905, regarding the probability of a lesion as the cause has been verified by other investigators and a number of cases has been reported in the medical literature which showed pathological lesions affecting this auriculo-ventricular Bundle of His.

Any interference by experimentation, or of compression of the bundle of His has produced the condition of partial or complete heart block as the compression or interference of continuity of the muscle was exerted.

As Newell,[2] says: "If the bundle of His is not intact the impulse cannot pass from the auricle to the ventricle and the normal condition is lost. Interference with the impule may be partial or total; accordingly there results partial or complete heart block."

Some endeavor to explain the etiology of the disease as arising from lesions of the pons or medula, of central nervous origin.

House,[3] in a paper read at Portland discussed this side of the matter.

With diagnostic reference the reflex indications will undoubtedly throw much light on the question and should be carefully observed and recorded.

Whether the location of the lesions in the central nervous system or the bundle of His, which latter now is the most apparent, is a matter which is important and it is urgent that carefully conducted autopsy should be made when possible, in every case of death from heart block.

1. American Journal of the Medical Sciences, January 1907.
2. Charlotte Medical Journal, Aprill 1908.
3. Journal American Medical Association, Nov. 30, 1907.

THE SOUTHSIDE VIRGINIA MEDICAL ASSOCIATION.

The next meeting of the Southside Virginia Medical association will be held in Emporia the first Tuesday in June. A splendid program will be presented at this session, as the following will attest:

Afternoon session, 2 p. m.—Reading of minutes last meeting. Address of president. Subject for general discussion. "Malaria:" (a) "Etiology, Diagnosis and Treatment," O. C. Wright, Jarratt, Va.; (b) "Pathology of Malaria," Dr. John Mann, Petersburg, Va.; "Further Remarks on Appendicitis," Dr. Southgate Leigh, Norfolk, Va., "Tonsilitis," Dr. Joel Crawford, Yale, Va. "Tubercular Trouble of Knee," Dr. A. R. Shands, Washington, D. C. "Vesical Calculi, with report of a Case," Dr. R. L. Hillsman, Richmond' Va. "Tertiary Syphilis in the Throat and the Frequency of a Wrong Diagnosis," Dr, D. D. Wilcox, Petersburg, Va. "Dysmenorrhea, Etiology and Treatment," Dr. E. R. Hart.

Night session, 8 p. m.—"Recent Laboratory Research in the Pathology of Rabies with Especial Reference to the Diagnosis and Etiology." Dr. A. G. Hoen, Richmond, Va. "Inguinal Hernia," Dr. E. E. Field, Norfolk, Va.

At the night session the public is invited to hear Dr. Hoen's essay on hydrophobia.

After adjournment the members of the Southside association will be tendered a smoker.

The following well-known doctors of Southside, Virginia, are the officers of the association: President, Dr. L. Lofton, Emporia, Va.; First Vice-President, Dr. W. B. Barham, Newsoms, Va.; Second Vice-President, Dr. L. H. Moseley, Ebony, Va.; Third Vice-President, Dr. J. G. Rennie, Petersburg, Va.; Fourth Vice-President, Dr. C. W. Astrop, Surry, Va.; Secretary, Dr. E. F. Reese, Courtland, Va.; Treasurer, Dr. O. C. Wright, Jarratt, Va.

One of the interesting features of the present meeting will be the address of President Lofton, which will deal with so-called "race suicide."

Editorial News Items.

An epidemic of hydrophobia has broken out among the dogs of Atlanta, Ga. Up to the middle of May, 20 persons had been bitten and received the Pasteur treatment. Heads of the Pasteur Institute say that more patients had been treated there this spring than in the three years preceding. The police department has begun a crusade against dogs.

The vital statistics for the year 1907 show a further marked decrease in the birth rate for France, which in a century has fallen from 1,007.000 to 774,000 a year. The reduction in the number of births last year was 33,000, as against an average decrease of 12,000 for the last seven years. The deaths in France in 1907 totalled 703,000 —19,000 more than the total number of births.

Dr. Arthur F. Reeves, of Buncombe county, N. C., has been visiting his home during a leave of absence from his duties as government physician in Panama. He returns to the isthmus about June 15.

Dr. L. C. Keerans, of Charlotte, N. C., on June 1st, announced that he will confine his practice exclusively to General Surgery and Consultation work.

The Court of Appeals of Georgia, in the case of Bennett vs. Ware, of Fitzgerald, has decided that a "magic healer" is not a physician in the sense that he is required to pay a license to practice in that State. The court held that the defendant is not a medical practitioner because he does not employ drugs in the treatment of patients.

It is said that during May a frightful epidemic of typhoid fever has been raging in the city prison of Kev, Russia. In spite of the suppression of details by officials the report has gone abroad that more than two hundred deaths had occurred up to May 15, and that practically all inmates are infected.

The Board of Health of Atlanta, Ga., in their efforts to give that city pure milk, have succeeded in gaining the co-operation of the dairymen. as is evidenced by a set of resolutions drawn up and presented by the dairymen's union.

Dr. R. H. Lewis, Secretary of the State Board of Health of N. C., reports that the location chosen for the State Tuberculosis Sanitarium is ideal. The scenery is not excelled on this side of the mountains. The tract contains 900 acres, and 200 of this are excellent farming lands. It is situated on the Aberdeen and Rockfish Railroad in the midst of the piney sand hills. Work on the first building, which will accommodate thirty patients, will begin at once.

The Tuberculosis exhibit which was in Montgomery, Ala., during and after the meeting of the State Medical Society has been in Birmingham also.

Dr. J. E. Garrison of Alabama, after being shot down by J. D. Williams, an electrician at Flat Creek, Ala., drew his pistol and shot the latter to death. The doctor was exonerated.

The health Department of Atlanta has begun early to wage war on that pest of summer time—the mosquito. The city council has been asked to contribute $5,000 to help on the work, but this request has been answered by an appropriation of $500. Nothing could be more important.

As always happens, stories have been floating around that many bad arms resulted from the recent vaccination campaign in Chattanooga. The physicians of that city have denied the reports. Such slander however is inevitable.

In the Inferior Criminal Court of Mobile, Ala., May 14, Dr. Daniel Winegarden, who was arrested several weeks ago, charged with the practice of medicine upon a negro woman and without a State certificate, the arrest being at the instance of Dr. W. T. Henderson of the Mobile County Medical Association, was fined $25 and costs by Judge Alford.

English Soldiers Dying of Cholera.

An official telegram received in London May 17, by the India office, reports 27 deaths from cholera in the regiment of Munster Fusileers, which a week ago was sent into the cholera camp from Major General Wilcox's force now operating against the Mohmands.

Dr. Theodore Toepel, of Atlanta, Ga., who is at the St. Joseph's Infirmary, is suffering with typhoid fever.

In New Orleans the death rate per 1,000 inhabitants during April was as follows:

	White.	Negro.	Total
April, 1907	.....21.51	33.87	24.77
April, 1608	.....19.30	33.67	23.39

Compared with that of April 1907, it is seen that a distinct improvement in mortality has taken place although this was confined almost entirely to the white race.

Dr. L. Julian Picot, Littleton, N. C., has been elected second assistant physician of the State Hospital for the Insane at Raleigh, N. C., to succeed Dr. Edwin B. Ferebee, resigned. Dr. Charles L. Jenkins was re-elected first assistant physican in charge.

Tuberculosis Among Negroes.

Dr. Newman of New Orleans says: "The negroes ought to get together in every part of the United States and organize to fight tuberculosis, for that dread disease is far worse in its ravages among their race than among white people."

"The figures show that consumption is three times as prevalent among the blacks as among the whites, and although there are eight times as many white people in the United States, more of the blacks die each year from this disease than do the more populous race. This greater fatality is easy to understand, because in most parts of the country the negroes have not awakened to the necessity of complying with the laws of sanitation.

"The churches and societies of the negroes and their labor unions ought to organize into one grand body to fight this hideous foe that is decimating the Afro-American element in America on such an appalling scale. There are many good physicians among them, but they need organization to carry on effective work and in this the white anti-tuberculosis organizations would everywhere lend a helping hand."

Dr. Lewis M. Gaines, who for the past three years has been professor of anatomy and physiology in the Medical Department of Wake Forest College, N. C., will return to Atlanta, Ga., to practice.

Hospital Alumi Banquet.

The Charity Hospital of Louisiana Alumi Association held a meeting May 16, at 8 o'clock in the rooms of the Orleans Parish Medical Society. At 9:30 the annual banquet of the association took place at the Old Hickory Restaurant, Carondelet and Gravier streets.

Dr. Ennion G. Williams, State health commissioner of Virginia, has announced the appointment of Dr. Allen W. Freeman, of Richmond, to be his assistant. Dr. Freeman is now assistant to Dr. E. C. Levy, chief health officer of the city of Richmond. Dr. Meade Ferguson, of Blackstone, has been appointed by Dr. Williams as State bacteriologist. The new State department of health will be opened in July.

Williams' Private Sanatorium.

Dr. Williams, the physician in charge, is no stranger to the people of the State, having been interested in the treatment of drugs and alcoholism for many years his methods will be strictly ethical and practical, each patient will be examined and the proper remedies prescribed and administered. In some cases modern electrical appliances will be employed, also electrical baths which have proved so efficacious in the treatment of neurasthenia and insomnia.

The following young doctors received hospital appointments at the recent commencement of the University College of Medicine, Richmond, Va.:

Virginia Hospital, Richmond, Va.—Dr. Lyle S. Booker, Waynesboro, Va.; Dr. Wallace D. Carr, Richmond, Va.; Dr. Frank K. Lord, Richardson, New Brunswick, Canada; Dr. J. Reid Sterrett, Hot Springs, Va.

St. Luke's Hospital, Richmond. Va.—Dr. A. H. Hoge, Hoge's Store, Va.; Dr. J. H. McCulloch, Henderson, W.Va.

Retreat for the Sick, Richmond, Va.—Dr. J. R. Blair, Churchville, Va.

City Home Hospital, Richmond, Va.—Dr Eugene C. Eggleston, Richmond, Va.; Dr. H. Fitzhugh White, Staunton, Va.

Sarah Leigh Hospital, Norfolk, Va.—Dr. W. W. Stafford, Elizabeth City, N. C.

Virginia Home for Incurables, Richmond, Va.—Mr. James L. Davis, Aidyl, Va.

Dr. J. B. S. Woolford, of Chattanooga, Tenn., will spend the summer in Germany. He will join a party of Medical friends in

New York and together they will sail June 2, on the Hamburg-American line, for Naples. Dr. Woolford will spend three months in Vienna.

At the second annual commencement of the Washington (N. C.) Hospital Training School, held in the Elk's hall of that city on the evening of May 28, the following young women were graduated: Misses Grace Edith Allen, Alice S. Pender, Henrietta Pate and Nora Fowden. The officers of the Washington Hospital are: Physicians, Drs. D. T. and Joshua Tayloe and E. M. Brown; Superintendent, Miss Frances A Gentry.

Dr. and Mrs. John B. Elliott, of New Orleans, La., will go to Highlands, N. C., where they will reside in the future.

The Army Medical School held its closing exercises in the Army Medical Museum, Washington, May 30th. Dr. William Lee Hart surgeon of the South Carolina National Guard, whose home is at Yorkville, and Dr. Calvin Duvall Cowles, Jr., whose home is at Wilkesboro, N. C., both graduated with high honors. Dr. Hart will enter the medical reserve corps, United states army, and will be stationed at Washington barracks; and Dr. Cowles will be commissioned in the medical corps, United States army, and will leave some time during the summer or early fall for the Phillipines.

At a meeting of the Academy of Medicine and Surgery, at Richmond, Va., on May 12th, Dr. Edward McGuire read a paper on Prolapse of the Ovary, which was discussed by Dr. R. C. Garcin. The Technique of Operations on the Mouth and Neck, was the title of a paper read by Dr. J. Shelton Horsley. The discussion on this paper was opened by Dr. J. W. Henson.

Dr. James W. Smith, of Monroe, Ga., has recently received the nomination to represent his home county (Walton) in the next Legislature of the State of Georgia. Dr. Smith is a graduate of the Atlanta Medical College, class 1889.

The druggists of Louisiana are making most strenuous efforts to have the Legislature of that State place the Pure Food Law in the hands of a pure food commission which shall be composed of two druggists, two physicians, one grocer and one chemist and the president of the State Board of Health ex-officio.

Dr. M. B. Neil has moved from Yorkville, S. C., to Charlotte, N. C., where he will engage in the practice of medicine.

A decision handed down by a justice of the Supreme Court of New York State says that Osteopaths must be recognized as physicians. Chas. Bandel, an Osteopath in Brooklyn, made application for a preemptory writ of mandamus to compel the Board of Health to register him as a physician, and accept from him death certificates. The decision was made on the grounds that the practice of medicine does not consist merely in the administration of drugs or the use of surgical instruments and that the act passed by the legislature does not specially state that osteopaths are not practitioners.

The ceremony of laying the corner-stone of the new Richardson Memorial building now being erected on the campus of Tulane University took place Tuesday, May 19. In this building the instruction of the first and second years of the medical department will be carried on, beginning with the next session which opens in October. The work is being rapidly pushed to completion. Hitherto none of the Tulane Medical Buildings have been located on the academic grounds.

A medical committee has been appointed to present to the Legislature of that State a resolution adopted by the Louisiana Anti-Tuberculosis League calling the attention of the legislative body to the needs of suitable sanatoria for the care of indigent cases of tuberculosis. The resolution indicates the necessity of establishing at least four or more such institutions in different parishes.

Dr. W. T. O'Reilly, of the New Orleans Board of Health, says that the sweets exposed for sale by candy venders are contaminated by the flies which light on the edibles after trying to eke out an existence on the filth of the streets. The result is to the decided disadvantage of those who buy the candy. The doctor is making strenuous efforts toward having the fly exterminated in his city.

Dr. H. T. Inge, of Mobile, Ala., has gone to Rochester, Minn., where he will be operated upon at the Mayo Clinic.

A movement has been started by the women of Elizabeth City, N. C., to build and equip an up-to-date hospital in that town. Subscriptions are being solicited and it is

said that much enthusiasm is evinced by the townspeople.

A bill in regard to physicians' liens, has been introduced before the Louisiana Legislature by the Claiborne Parish Medical Society, and is designed to increase the lien and privilege on the crop of said person for services rendered from the sum of $15 to $30. As the law now stands, the physician, for his services rendered, regardless of the time the person is ill, is only allowed the sum of $15 as a privilege; concurrent with other claims to that amount, while other privilege creditors have no limit. The Louisiana doctors believe that the medical fraternity is entitled to this protection."

Dr. James Evans, of South Carolina, who was injured by a street car in Rome several weeks ago, writes to his friends in South Carolina that he is much improved and will sail for this country in a few days.

Dr. F. T. Meriwether, of Asheville, N. C., has just opened a private Hospital for Surgical and Gynecological cases. The hospital, a modern fireproof brick structure, is located at 24 Grove St. It is thoroughly equipped in the most approved manner, up-to-date furnishings and equipment having been installed. There are accommodations for eighteen patients. With Miss B. A. Veal as superintendent and under her a well-trained corps of nurses, nothing more could be desired to make Dr. Meriwether's hospital complete in every respect.

The magnificent new Charlotte Sanatorium, which will be one of the most complete and up-to-date structures of its kind in the entire South, is rapidly assuming such proportions that the beauty of its external design is already apparent. Located on the corner of Seventh and Church streets, the building occupies one of the highest sites in the city, and, commanding an extensive view of the town on all sides, it will also be one of the most prominent and conspicuous buildings in the whole city. The walls are being finished with white pressed brick, which gives a most neat and tasteful appearance. From the laying of the very first brick the work has been in charge of experts and everything is being so carefully scrutinized that no flaw in structural execution can possibly be found.

The first annual meeting of the Association of Surgeons of the Atlanta, Birmingham & Atlantic Railroad was held at the Oglethorpe Hotel, Brunswick, Ga., May 27, '08. The program included the annual reports of officers, addresses by the physicians and surgeons employed by the road and the election of officers for the ensuing year. Dr. W. S. Elkin, of Atlanta, is chief surgeon of the railroad and president of the association. Dr. G. W. Blanton, of Brunswick, Ga., is vice-president and Dr. W. S. Goldsmith, Atlanta, secretary.

The graduating exercises of the University of North Carolina medical department, were held in Gerrard Hall, on the campus of the University at Chapel Hill, May 21st. Diplomas were presented to twelve men: J. M. Buckner, W. W. Greene, Jr., D. W, Harris, E. M. McIver (Ph.B., 1904), R. G. MacPherson. J. D. Maynard, G. M. Monk, A. F. Nichols (A. B. 1905), E. J. S. Cofield, A. J. Terrell, J. B. Watson, S. E. Webb. The exercises were opened by prayer by Rev. W. R. Royall. President Venable introduced the speaker of the evening, Dr. George Gillette Thomas, of Wilmington, an alumnus of this institution and president of the State Board of Health and chief surgeon for the Atlantic Coast Line Railway.

The graduating exercises of the Highsmith Hospital Training School for nurses, at Fayetteville, N. C., took place on May 28th. 1908. The address to the graduating class was made by Dr. I. W. Hughes, the presentation of diplomas by Dr. J. F. Highsmith. A paper was read on the Nursing Progress by the superintendent of nurses, Miss V. C. Flippo. The hospital pins were delivered by Dr. J. Vance McGougan. Dr. Seavy Highsmith was master of ceremonies, and the music for the occasion was furnished by Mrs. I W. Hughes.

This training school is one of the largest and best in the State, and Dr. Highsmith's hospital is modern in construction and splendidly equipped, affording ample facilities for all surgical and medical cases. It has about 70 rooms and is equipped with elevators, private baths. etc,

Cholera in Simla.

An outbreak of cholera in Simla has compelled the withdrawal of nearly all the white troops with Major General Willcocks. The intense heat and the absence of running water, necessitating dependence on the muddy village water tanks makes the danger of a cholera epidemic serious.

Anderson (S. C.) Medical Society.

At the monthly meeting of the Anderson Medical association, President W. H. Nar-

din, Jr., was instructed to notify all doctors practicing in Anderson county without State board licenses that they must appear before the State board in June or else they will be reported to the proper authorities for punishment. It is said that there are three or four doctors practicing in this county who have no licenses. The meeting also decided that a uniform fee bill should be drafted for the guidance of the members of the society.

Surgical Medical Association.

The American Surgical Medical Association met in Richmond, Va., on May 4th, and held an executive session lasting several hours, after which the president, Dr. W. H. Carmalt, of New Haven, in opening the session, read his annual report before a large attendance.

State Medical Board.

The State Board of Medical Examiners of Virginia, will meet in Richmond on June 23d, when applications will be made by a number of recent graduates for certificates to practice in Virginia. The examination will be held in the hall of the House of Delegates.

Dr. Hayne,

Dr. James Adam Hayne of Greenville, S. C., after a short vacation and visit to relatives in South Carolina, returned with his family to work in the isthmian canal service, on May 4, sailing from New York. Dr. Hayne is stationed at Culebra, is much pleased with the country, climate and surroundings, has been on the isthmus for a year, and will remain there a year longer. Dr. Hayne is a member of the State board of health of South Carolina, the meeting of which he attended while in session at Columbia, in April; also of the South Carolina Medical association, which he attended at its late meeting at Anderson.

State Medical Board of South Carolina.

Gov. Ansel yesterday appointed Drs. Henry H. Wyman of Aiken, H. L. Shaw of Fort Inn, and J. L. Napier of Bennettsville as members of the State board of medical examiners for the terms of office as prescribed by law.

Plague at La Guayra.

There were twelve cases of Bubonic Plague in the La Guayra hospital on May 7th.

Dr. Allard Memminger.

Dr. Allard Memminger, senior member of the faculty of the Medical College of South Carolina has been elected the dean of the institution. Dr. Memminger succeeds Dr. Edward F. Parker, who has had a most successful administration of three years and who has been forced to resign on account of the work of the office conflicting with his private practice too seriously. Dr. Memminger is peculiarly well qualified for the position and it is certain that the interests of the college will be cared for under his administration.

Graduate Nurses of Columbia, S. C.

At the regular monthly meeting of the Graduate Nurses' association of Columbia held in the Walter Taylor Nurses' Home parlor yesterday. It was unanimously decided to charge the rate of $25 per week as is charged, and has been for several years, by all other State associations. This has been under discussion for some time, but was not fully decided until Thursday afternoon.

Plague at Porto Cabello.

It is believed that the bubonic plague, which has been prevalent at La Guaira, has broken out at Porto Cabello, though the exact nature of the disease which started there, has not been determined.

Marriages.

Dr. Bates Black to Miss Julia Lowry Porter, both of Atlanta, Ga., May 1st, '08.

Dr. Kenneth Bradford, Birmingham, Ala., to Miss Lily Margaret Camp, of Talladega, Ala., June 17.

Dr. P. C. Jurney, to Miss Grace Steele, both of Turnersburg, N. C., May 20, '08.

Dr. L. E. Farthing, Pittsboro, N. C,, to Mrs. Maude Hackney Pugh, of Durham, N. C., May 20, '08.

Dr. Quinton Henry Cooke, to Miss Effie Benthall, both of Woodland, N. C., June 3rd, '08.

Dr James M. Covington to Miss May Little Dunlap, both of Wadesboro, N. C., June 23, '08.

Dr. G. W. T. Loadboldt, Jennings, S. C., to Miss Ethel Miller, of Salisbury, N. C., May 20, '08.

Bishop-Duvall.

On May 21st, Dr. J. W. Bishop, a prominent young physician and surgeon of Alachua, Fla., was married to Miss Ellen Eugenia Duvall, at the home of the bride's parents, Mr. and Mrs. Wm. Duvall, of Farmville, Va. The ceremony was performed by the Rev. Chas. Crawley, uncle of

the bride, assisted by the Rev. Samuel C. Hatcher, of the Farmville Methodist Episcopal Church.

Merilh-Tusson.

On May 19th, Miss Louise Merilh was married to Dr. Geo. Tusson, in the St. Louis Cathedral, New Orleans, La. The wedding was followed by a reception at the home of the bride's parents, Mr. and Mrs. J. Edmund Merilh, on Bourbon St.

Lee-Shaw.

Dr. Jno. J. Lee, of Augusta, Ga. a recent graduate of the Medical College of Georgia, celebrated his entrance upon his profession by marrying Miss Effie Shaw. The marriage took place at the home of Dr. Lee's sister, Mrs. Turner G. Howard, Rev. Richard Wilkinson officiating. Dr. and Mrs. Lee will make their home in Bainbridge, Ga., where the doctor will enter upon the practice of medicine.

Dr. Simril M. Henderson, Mecklenburg Co. N. C., to Miss Pearl McArton of Fayetteville, N. C., June, 3.

Dr. J. D. Carlton, Salisbury, N. C., to, Miss Meta Winstead, of Rocky Mount, N. C., June 9.

Searcy-Persinger.

The marriage of Dr. George H. Searcy and Miss Mary Persinger of Lodge Pole, Neb., occurred at the home of Mr. and Mrs. George W. Christian at Northport, Ala., on May 9th.

The wedding was a very quiet affair, only the immediate family being present. The ceremony was performed by Rev. E. A. Penick, rector Church Church. The bride was given away by T. W. Christian, and the best man was Joe A. Searcy, brother of the groom. The maid of honor was the bride's little cousin, Margaret Shirley.

Dr. Searcy is one of the most prominent young physicians in the State. He is a son of Dr. James T. Searey, superintendent of the Alabama Insane Hospitals. After graduating from the University of Alabama he took his degree for medicine from the University of Michigan. He has been very successful both in his individual practice and in the conduct of the Somerville-Searcy Infirmary, in which he is associated with Dr. W. G. Somerville. He is also a member of the faculty of the University Medical Department at Tuscaloosa.

Directly after the ceremony Dr. and Mrs. Searcy left on the Mobile & Ohio train for Lodge Pole, Neb., where they will visit the bride's father. When they return they will be at home at a visit at the groom's father at his home on the hospital lawn.

Deaths.

Dr. R. O. Marcour.

Dr. Ralph O. Marcour, of New Orleans, a graduate of Tulane University Medical Department, class 1897, died suddenly, May 16, of acute indigestion in a room at the Cosmopolitan Hotel, New Orleans. Apparently unusual features of the death were accounted for by the coroner as above.

Dr. Marcour was president of the New Orleans College of Midwifery. He was a well-known member of the Elks and Shriners. He was a surgeon in the United States navy during the Spanish-American war and was an active participant in the most recent local yellow fever campaign. He came into prominence recently by advocating the formation of a vigilance committee for safety and suppression of crime in the city.

Dr. L. F. Heintz.

Dr. Louis F. Heintz, Memphis Hospital Medical College, class 1899, died May 16, at his home in Marion, Ark., after a long illness. Dr. Heintz was a native of New Orleans and studied in Tulane University, but early in life removed to Memphis where he lived for a number of years. Later he went to Marion, Ark., where he practiced medicine, owned a cotton farm and was sheriff of Chittendon county. He leaves a wife and one child.

Dr. A. L. Huston.

The funeral of Dr. Andrew Huston, who was drowned May 21st, with six others, by the explosion of a gasolene launch near Clarendon, Ark., took place in Decatur, Ala., after having been found on May 25h.

Dr. Huston was a son of Mr. and Mrs. A. F. Huston, of Decatur.

Dr. Huston was born and reared in Decatur and received his early education there He was one of the most popular young men of that city. He was engaged to be married to a young woman who was also drowned in the ill-fated launch.

Dr. S. S. Thrower.

Dr. S. S. Thrower, of Bradleyton, Ala., died on the 21st of May. He was one of the oldest practicing physicians in Crenshaw county. He had been in bad health for quite a while and his death was not a surprise.

Dr. J. W. Watkins.

Dr. J. W. Watkins, of Campbell county, about five miles from Palmetto, Ga., died at his home on May 20th. Dr. Watkins was one of the most prominent physicians and one of the most popular citizens in

Campbell county. He was 72 years of age and had practiced medicine in his county for more than fifty years.

Dr. J. F. Clack.

Dr. J. F. Clack, whose home was near Reidsville, Rockingham county, N. C., died May 22, after several days illness, aged 81 years.

Dr. R. L. Bomar.

Dr. R. L. Bomar, a prominent physician of Cherokee county, Ala., died at his home on the 13th of May. He was 46 years old and had been in failing health for some time. In the days of Populism he was prominent in the causes of that party.

Dr. T. H. Abbott.

Dr. T. H. Abbott, aged 75 years, died at his residence, at St. George, S. C., on Monday, May 6th, and was buried at the village cemetery. Dr. Abbott was a graduate of the Medical College of the State of South Carolina, Charleston, in the year 1855. He was a successful practicing physician and enjoyed a large practice up to a few years ago, when his health began to give way.

Dr. Thomas Edgar Schumpert.

Dr. Thomas Edgar Schumpert, Medical Department University of Louisville, class 1884, died May 16th at the Shreveport (La.) Sanitarium of typhoid fever. Dr. Schumpert was forty-five years of age and was one of the most prominent among the physicians of Shreveport. He has been president of the Louisiana State Medical Society, Member of the State Board of Health, president of the Shreveport Medical Society and of the Board of Health of that city, vice-president of the Tri-State (Ark., La., and Tex.) Medical Society, Member of American Medical Association. He was proprietor and surgeon of the Shreveport Sanitarium and was prominently identified with affairs in his town and State.

Dr. Thomas L. Maddin.

Dr. Thomas L. Maddin, Medical Department University of Louisville (Ky.), class 1849, died recently at his home in Nashville, Tenn., preceding his brother, with whom he had been long associated, by just one week. Dr. Maddin was Professor of Nervous Diseases and General Pathology, University of Nashville; ex-President Board of Health of Nashville; ex-President and Member Tennessee State Medical Society; Member American Medical Association and of the Nashville Academy of Medicine and Surgery.

Dr. Jno. W. Maddin.

Dr. Jno. W. Maddin, Medical Department University of Nashville (Tenn.) class 1856, died recently at his home in Nashville, Tenn., his death closely following that of his brother, notice of whose death is given elsewhere. It is probable that no two men of the State have done more professional labor in all branches of medicine than these two brothers. Dr. J. W. Maddin practiced in Waco, Texas, from 1856 to 1862. From '62 to '64 he was a surgeon of the Confederate army—at the close of the war he removed to Nashville and began practice with his brother, Dr. T. L. Maddin, the two forming a partnership broken only by death. Dr. J. W. Maddin has served as president of both the Nashville Academy of Medicine and Surgery and the Tennessee State Society. His wife and five children survive. His son, Dr. J. W. Maddin, Jr., is also a prominent physician of Nashville.

Dr. M. S. Gressett.

After an illness of about nine weeks, Dr. M. S. Gressett, the oldest and for many years the leading physician of Branchville, S. C., passed away.

Dr. Gressett has practiced medicine in Branchville for 40 years. He was held in highest esteem by the citizens of Branchville and the surrounding country as a man and as a physician. He did a large amount of benevolent practice, and also contributed freely to charity in all forms.

Program of the Fifty-Fifth Annual Meeting of the Medical Society of the State of North Carolina to be held in Winston, June 16-17-18, 1908.

OFFICERS:

President—J. Howell Way, Waynesville.

First Vice President—J. E. Stokes, Salisbury.

Third Vice President—Nixon Edwards, M. D., Beaufort.

Secretary—D. A. Stanton, M. D., High Point.

Treasurer—H. McKee Tucker, M. D., Raleigh.

ENTERTAINMENT.

At the time the program goes to press the Committee on Arrangements have not completed their plans for the entertainment of the visiting physicians, but it is understood that the profession of Winston-Salem will be equal to the occasion and all will be pleased with their visit to Winston.

IMPORTANT NOTICE.

Register before entering hall.

The registration clerk will be found outside the door to meeting-room. He will issue badges, and invitations to social functions.

Registration is essential. See by-laws

Chapter 1, Section 4.

Rules for original papers: See by-laws, Chapter 3, Section 4 and 5.

The fifty-fifth annual meeting of the Medical Society of the State of North Carolina will be held in the county court house at Winston, June 16-18, 1908.

The Medical Society of the State of North Carolina has grown to such proportions that no M. D. can fail to attend upon its sessions. The scientific papers read, and the discussions are of such a high order that a three days attendance is equal to a month's stay in any medical center.

The meeting in Winston this year promises to be no exception to those in the past, and every physician in North Carolina who can should avail himself of this annual occasion to gather information which will be of incalculable benefit to himself and his patrons.

This meeting is the most important that has been held in six years. At this meeting a full board of medical examiners will be elected to serve six years. This is exceedingly important to the profession of the State, and the future standing of the profession depends largely upon the wisdom of the House of Delegates in selecting men to fill these positions.

Dr. C. W. Spencer, Winston-Salem is chairman of the Committee of Arrangements, and all can rest assured that nothing will be left undone to make our sojourn in Winston-Salem pleasant and profitable.

The Southern Railway Co., has granted a rate of 1½ cents per mile.

The Hotel Zinzendorf has made a rate of $2.50 per day to each person for room without bath, and $3.00 and $3.50 to each person for room with bath.

Hotel Forsythe, $1.50 to $2.00 per day.

Hotel Francis, $2.00 per day.

Hotel Phœnix, rooms 50 cents per day, meals at Restaurants and Boarding Houses at moderate rates.

ORDER OF EXERCISES:

Tuesday Morning, June 16th, 10 A. M. to 1:30 P. M.

Call to order by Chairman Dr. W. O. Spencer.

Invocation by Rev. H. A. Brown, Winston.

Address of Welcome by Mayor O. B. Eaton, Winston.

Response to Address of Welcome by Dr. C. L. Pridgen, Kinston.

"The President's Annual Address," Dr. J. Howell Way, President. Waynesville.

SECTION ANATOMY AND SURGERY.

Chairman—Dr. Joshua Tayloe, Washington.

1 "Diagnostic Value of Exploratory Incision, with Case Cited."

2 "Some Points on Minor Surgery," Dr. W. J. HcAnnally, High Point.

3 "Ligation of the Femoral Artery Eight Hours After Injury. Result," Dr. J. R. Paddison, Oak Ridge.

4 "Orthapædic Surgery—A Plea for the Crippled and Deformed Children of North Carolina," Dr. J. L. Hanes, Winston.

5 "Some Practical Points on Hernia," Dr. R. L. Payne, Norfolk, Va.

June 16th, 2:30 P. M.

House of Delegates called to order by the President in County Commissioners' room.

6 "Mesenteric Thrombus Following Splenectomy," Dr. J. W. Long, Greensboro.

7 "Excision of the Coccyx," Dr. John R. Irwin, Charlotte.

7 "The Surgical Conscience," Dr. John C. Rodman. Washington.

9 "Etiology, Symptoms, Diagnosis and Treatment of Empyema with Report of Thoracotomy," Dr. J. T. Burrus, High Point.

10 "Hydrocele," Dr. E. G. Moore, Elm City.

11 "The General Practitioner as a "Surgeon," Dr. Edmund Harrison, Greensboro.

12 Traumatic Aneurism, with Report of a Case," Dr. J. B. Gibbs, Lexington.

13 "An Interesting Case of Gangrene," Dr. K. P. B. Bonner, Morehead City.

14 "Cancer as we View it Today," Dr. W. O. Spencer, Winston-Salem.

15 "Coxa Vara," Dr. Wm. Moncure, Raleigh.

16 "Conservative Surgery," Dr. Joseph Akerman, Wilmington.

17 "The Value of Anti-Operative Tests," Dr. G. M. Strong, Charlotte.

18 "An Interesting Case of Stone in the Bladder," Dr. James M. Parrott, Kinston.

19 "The Importance of Early Treatment of the Mastoid Complications of Middle Ear Disease," Dr. J. M. Lilly, Fayetteville.

20 "Abscess of the Brain," Dr. K. G. Buckner, Asheville.

21 "The Influence of the Constitutional Condition of the Patient on the Result of the Operation," Dr. Stuart McGuire, of Richmond, Va.

22 "Carbuncle, its Etiology and Treatment, Particularly the Latter," Dr. T. E. Anderson, Statesville.

23 "Endo-Aneurismorrhaphy" (Matas), Dr. Thos. M. Green, Wilmington.

24 "Appendicostomy in Amæbic Dysentery; Report of Case," Dr. Brodie C. Nalle, Charlotte.

Wednesday, June 17th, 9 a. m.

SECTION ON PRACTICE.

Chairman.—Dr. L. B. McBrayer, Asheville.

27 "The Importance of the Work of the General Practitioner," Dr. L. B. McBrayer, Asheville.

28 "The Relation of the General Practitioner to Gynecology," Dr. J. E. Stokes, Salisbury.

29 "Obstetrical Work from the Standpoint of the General Practitioner," Dr. A. B. Croom, Maxton.

30 "The Relation of the General Practitioner to Surgery," Dr. T. E. W. Brown, Asheville.

31 "The Relation of the General Practitioner to the Ophthalmologist," Dr. Galliard S. Tennant, Asheville.

32 "Pain in the Abdomen and what it Means to the General Practitioner," Dr. Henry F. Long, Statesville.

33 "Manners in the Sick-room," Dr. C. S. Jordan, Asheville.

34 "The Results of Surgery as Seen by the General Practitioner not Being an Adverse Criticism," Dr. J. Allison Hodges, Honorary Member, Richmond, Va.

Wednesday, 12 o'clock.

CONJOINT SESSION STATE BOARD OF HEALTH.

Secretary.—Dr. Richard H. Lewis, Raleigh.

36 "Soil Pollution, with Special Reference to Hook-worm Disease," Dr. Chas. Wardell Stiles, Chief Dept. Zoology, Washington, D. C.

37 "Milk Supplies in Relation to Public Health," Dr. Tait Butler, State Veterinarian, Raleigh.

SUB-SECTION ON PELLAGRA.

Chairman.—Dr. Edward J. Wood, Wilmington.

38 "Pellagra, Its Nature, History and Appearance in this country," Dr. Edward J. Wood, Wilmington.

39 "Pellagrous Insanity," Dr. John McCampbell, Morganton.

40 "Etiology and Pathology of Pellagra," Dr. C. L. Lavinder, U. S. P. H. and M. H. S.

SUB-SECTION ON TUBERCULOSIS IN COLLABORATION WITH THE NORTH CAROLINA ASSOCIATION FOR THE PREVENTION OF TUBERCULOSIS.

Chairman.—Dr. John Roy Williams, Greensboro.

41 "Report of Cases Treated with Ichthyolated Emulsion Compound," Dr. John Roy Williams, Greensboro.

42 "Vaccine or Tuberculin Therapy in the Treatment of Tuberculosis," Dr. H. B. Weaver, Asheville.

43 "The Importance of Early Diagnosis in the Successful Treatment of Tubercular Affections," Dr. Daniel A. Dees, Bayboro.

44 "The Turn of the Tide of Tuberculosis Mortality," Dr. M. L. Stevens, Asheville.

45 "Our Greatest Need in the Successful Treatment of Tuberculosis," Dr. E. L. Stamey, Greensboro.

46 "Early Tuberculosis and Malaria, their Differentiation," Dr. Paul H. Ringer, Asheville.

47 "The Use and Abuse of Drugs in Tuberculosis," Dr. W. M. Jones, High Point.

48 "Out-Door Life in the Treatment of Respiratory Troubles and Some Other Matters," Dr. Paul Paquin, Asheville.

49 "A Few Suggestions for Those Suffering from Tuberculosis," Dr. Wm. R. Kirk, Hendersonville.

50 "Diagnosis of Acute Miliary Tuberculosis," Dr. Silvio von Ruck, Asheville.

(At this point the North Carolina Association for the Prevention of Tuberculosis requests the floor for about ten minutes for the purpose of electing delegates to the National and International Association, announcements, &c.)

SUB-SECTION ON GENERAL DISEASES AND MISCELLANEOUS PAPERS.

Chairman.—Dr. Chas. B. Wilkerson, Apex.

51 "The Necessity of Quarantine in Pneumonia," Dr. Chas. B. Wilkerson, Apex.

52 "Childhood with its Exacting Cares and Responsibilities and Glorious Results," Dr. I. W. Faison, Charlotte.

53 "Influenza," Dr. J. H. Merritt, Woodsdale.

54 "Acute Rheumatism," Dr. L. B. Young, Robinsville.

55 "Report of a Case of Typhoid Cholecystitis," Dr. W. A. Graham, Durham.

56 "Venesection, its Indications and Uses as a Therapeutic Agent," Dr. Wm. Moncure Lyday, Penrose.

57 "Milk Sickness," Dr. J. A. Reagan, Weaverville.

38 "A Practical Study of Epilepsy," Dr. E. S. Warlick, Morganton.

59 "The Examiner's Golden Rules for Life Insurance Work," Dr. Albert Anderson, Raleigh.

60 "Reciprocity Between the State Examining Boards," Dr. A. A. Kent, Lenoir.

61 "The Role of Moral Trauma in Producing Physical Damage," Dr. R. S. Carroll, Asheville.

62 "Hydrastis Treatment of Bright'sDisease," Dr. Francis Duffy, Newbern.

63 "Some Atypical Forms of Malaria," Dr. J. W. P. Smithwick, LaGrange.

64 "Treatment of Typhoid Fever," Dr.

T. C. Quickel, Stanley.

65 "Epidemic or Malignant Cholera as Observed in the Philippine Islands," Dr. C. G. Bryant, Spruce Pine.

66 "Application of Dietetics in Acute and Chronic Intestinal Infections," Dr. Fenton B. Turck, Chicago, Ill.

67 "A New Method of Shortening an Ocular Muscle with Exhibition of Instruments," Dr. H. H. Briggs, Asheville.

68 "Early Recognition and Treatment of Toxic Amblyopia as Caused by the Abuse of Tobacco and Alcohol," Dr. J. Harry Honnett, Wilmington.

69 "Influenzal Arthritis," Dr. Jas. J. Philips, Tarboro.

70 "Perforation and Peritonitis Complicating Typhoid Fever," Dr. Edward C. Register, Charlotte.

71 "Personal Views on the Treatment of Typhoid Fever," Dr. C. E. Reitzel, High Point.

72 "Aerostatic Deafness, Its Etiology and Treatment," Dr. W. P. Reaves, Greensboro.

73 "To be Rather than Seem," Dr. N. C. Hunter, Rockingham.

74 "Report of a Case—A Remarkable Case of Fever in a Pregnant Woman," Dr. Cyrus Thompson, Jacksonville.

Wednesday evening, June 17th, 8:30.
(To which the public is invited)

75 The Annual Oration, Dr. Charles S. Mangum, Chapel Hill.

76 "The Physician and Education,"—The Annual Essay, Dr. Thomas R. Little, Greensboro.

SECTION ON MATERIA MEDICA AND THERAPEUTICS.

Chairman.—Dr. L. N. Glenn, McAdensville.

76 "Cathartics," Dr. M. A. Royall, Yadkinville.

78 "The Importance of Proper Dosage in the Administration of Quinine," Dr. Parran Jarboe, Greensboro.

79 "Normal Salt Solution, Its Use and Method of Administration," Dr. C. A. Woodard, Durham.

80 "Anæsthetics and Anæsthesia," Dr. C. S. Grayson, High Point.

81 "A Brief Report of Some Cases which have Yielded Surprisingly to X-Ray Treatment Aided by Snow's Tubes and Mechanical Vibration," Dr. J. Thomas Wright, Winston-Salem.

82 "Adrenalin Chloride, Its Use in Medicine," Dr. C. O. Abernathy, Raleigh.

83 "Use and Abuse of Morphine and Kindred Drugs," Dr. D. A. Garrison, Bessemer City.

84 "Therapeutics an Art," Dr. W. H. Boone, Morrisville.

85 "A Plea for Fewer and Simpler Remedies," Dr. John Hill Tucker, Henderson.

SECTION ON GYNECOLOGY AND ABDOMINAL SURGERY.

Chairman.—Dr. J. F. Highsmith, Fayetteville.

86 "A Plea for Early Operation in Appendicitis when the Diagnosis is Obscure," Dr. J. F. Highsmith, Fayetteville.

87 "Hysterectomy with Report of a Case," Dr. Rigdon O. Dees, Greensboro.

88 "Surgery of the Stomach," Dr. W. F. Faison, Jersey City, N. J.

89 "Imperforate Hymen with Report of a Case," Dr. S. C. Highway, Murphy.

SECTION ON OBSTETEICS.

Chairman.—Chas. T. Harper, Wilmington.

90 "Demand for Early Surgical Interference in Pernicious Vomiting of Pregnancy," Dr. J. A. Williams, Greensboro.

91 "The Things that Kill Women in Childbearing, and How and Why," Dr. H. D. Stewart, Monroe.

92 "Management of Labor," Dr. J. W. McGehee, Reidsville.

93 "Puerperal Eclampsia," Dr. E. F. Strickland, Bethania.

94 "Hydatidiform Mole with Report of a Case," Dr. J. B. Cranmer, Wilmington.

95 "Caesarean Section with Report of Cases," D. H. McKee Tucker, Raleigh.

SECTION ON PAEDIATRICS.

Chairman—Dr. W. W. McKenzie, Salisbury.

96 "Maternal Nursing," Dr. W. W. McKenzie, Salisbury.

97 "An Artificial Food Suitable for Young Infants," Dr. Chas. Roberson, Greensboro.

98 "Scarlatiniform Eruption," Dr. J. S. Brown, Hendersonville.

99 "Pneumonia in Children," Dr. J. A. Turner, High Point.

100 "Ileo-Colitis, Dr. H. L. Mock, Spencer.

101 "Diphtheria and a Word for Antitoxin," Dr. E. M. Hutchens, Booneville.

102 "Post Scarlatinal Nephritis," Dr. W. J. Meadows, Greensboro.

103 "Acute Gastro-Intestinal Intoxication without Diarrhœa in Children," Dr. S. A. Wilkins, Gastonia.

104 "Pleurisy in Children," Dr. J. R. McCracken, Waynesville.

105 "Clinical Report of a Case of Pseudo-Leucocythemia Infantum," Dr. W. M. Jones, High Point.

SECTION ON PHYSIOLOGY AND CHEMISTRY.

Chairman—Dr. E. T. Dickinson, Wilson.

106 "The Artificial Interruption of the Physiological Circulation as a Therapeutic

Measure." Dr. E. T. Dickinson, Wilson.

107 "The Physiology of the Kidney and the Essential Examination of the Urine," Dr. I. W. Lamm, Lucama.

108 "The Importance of a Thorough Knowledge of Biology, Bacteriology and of the Circulation of the Blood for the Successful Application of Serum Therapy." Dr. J. C. Grady, Kenly.

109 "The Necessity of Chemical Examination of the Stomach Contents in Gastro-Intestinal Diseases," Dr. C. W. Moseley, Greensboro.

110 "The Relation of the Laboratory to the General Practitioner," Dr. Watson S. Rankin, Wake Forest.

SECTION ON RAILWAY SURGDRY.

Chairman—C. A. Julian, Thomasville.

111 "Railway Surgery," Dr. C. A. Julian, Thomasville.

112 "The Railway Surgeon and what is Expected of Him by this Company," Dr. W. A. Applegate, Chief Surgeon Southern Railway, Washington, D. C.

113 "Lacerations of the Hands," Dr. Robert S. Young, Concord.

114 "Conservatism in Railway Surgery," Dr. W. P. Whittington, Asheville.

115 Subject to be announced, Dr. J. T. J. Battle, Greensboro.

116 Subject to be announced, Dr. Geo. G. Thomas, Wilmington.

SECTION PATHOLOGY AND MICROSCOPY.

Chairman—Dr. Ben. K. Hays, Oxford.

118 "Metchnikoff's Theory of Old Age."

Review of Southern Medical Literature

The Alabama Medical Journal, April, 1908.

The State and Municipal Control of Tuberculosis.—Dr. R. B. Harkness believes that the two great truths that must be spread broadcast are, first and most important, that tuberculosis can be prevented: 1. By destroying the sputum of all known or suspected tubercular subjects. 2. By strict regulation of promiscuous expectoration. 3. By the carrying out of general hygienic measures, such as thorough ventilation, keeping down dust, prevention of overcrowding. 4. Thorough routine inspection of all domestic animals known to be susceptible to tuberculosis. Second that tuberculosis may be cured: 1. By carrying out the regulations already mentioned. 2. By absolute rest, fresh air and forced feeding. The avenues through which this knowledge can be diffused are the public press, the pulpit, the lecture platform, the school and the home. The following is given as a practical working plan for the control of tuberculosis: 1. We must have compulsory notification, for, without being notified of the existence of the disease, the health officials cannot institute measures to control its spread. 2. We must have a complete system of inspection by specially trained medical men and nurses, who shall determine whether or not a patient is putting the health of others in jeopardy, and if so, what measures are to be instituted to remedy the conditions found. These measures would include: 1. Distribution of literature in home. 2. Personal instruction in prophylactic measures, distribution of sputum cups and such other supplies as are necessary. 3. Isolation of patients at home or removal to hospital, when such measures are deemed necessary. 4. The establishment of sanitariums for the treatment of tubercular patients. There should be one of these institutions convenient to every town or city of any considerable size. These institutions should be made as nearly self-sustaining as possible. Such patients as are able should pay their actual expenses. In no case, however, should there be made any discrimination between pay, part pay, or charity patients in the facilities offered them. In this way alone can a strong, popular prejudice against our poor houses be overcome. 5. There should be public dispensaries at which those who have home facilities and yet are not able to pay for medical attention may receive treatment. 6. There should be a complete system of food inspection, with especial reference to meat and milk inspection. Bovine tuberculosis is believed to be comparatively rare in the South, but the tubercular test has not been generally or systematically applied to dairy cattle. Each individual of a dairy herd should receive this test once annually and no cow should be added to the herd without having been subjected to it. 7. The suppression of nostrum advertisements.

The Importance of Co-operation of the Medical Profession in Municipal Public Health Work.—Dr. E. C. Levy says it must be admitted that immense as are the possibilities of sanitary science, still the greater part of all diseases which afflict mankind are not as yet preventable by any known means. A very considerable number of diseases can, however, undoubtedly be prevented by intelligent application of the lessons of sanitary science on the part of the health authorities, the medical profession, and the people themselves. And, as the public comes more and more to realize that for this constantly increasing list of diseases prevention is far easier and more satisfactory in every respect than is the attempt to cure them after once established, they will also come to adopt more and more the policy

of calling upon their physicians to instruct them how to keep well, and further, of calling him in in earlier stages of illness—stages more amenable to treatment. Again, they will learn to have their physical condition carefully looked into at regular intervals just as they have learned to have their teeth examined by the dentist, thus detecting, as is so often done even now in connection with examination for life insurance, the insidious beginning of disease in the apparently healthy. All these things will open up a vast field for the medical profession, a field in which their opportunities for good will be immense, their proportion of cures greater, and from a selfish standpoint, their fees better assured in the absence of a long and expensive illness to deplete the family exchequer. But in order to meet this new state of affairs the physician must be thoroughly qualified for it. He must become more proficient in diagnosis, since the recognition of disease in its incipiency calls for a higher degree of diagnostic skill than does the advanced case. He must also become a better hygienist, for if the people are to pay their money for advice on preventive measures they will not be satisfied with hygienic generalities, such as can be gotten from a school text-book or even from the daily press. The health authorities and the doctors must work hand in hand. To illustrate, the doctor must be dependent on the health authorities to see that when he prescribes a milk diet, the patient can get milk which will furnish the desired nutriment without subjecting him to the risk of typhoid fever or other intestinal diseases; when he prescribes life in the open air he looks to the health authorities to see that the air is not befouled with smoke and laden with expectorated germs or malaria-bearing mosquitoes.

The American Practitioner and News, April, 1908.

Simple Anemia in Children.—Dr. P. F. Barbour believes that there are many causes of anemia in infants and children. Red blood cells and hemoglobin may not be formed owing to nutritional or other disorders, or they may be destroyed more rapdily than normal by various toxic agents or by the increased demand from a rapidly growing body. Traumatisms, epistaxis, and kindred conditions may rarely cause anemia. More commonly it results from toxins and indigestion. Certain drugs, as chlorate of potassium, lead, etc., or sewage gas; sulphuretted hydrogen, etc., are factors. The contagious diseases, of which diphtheria stands first, produce a marked anemia; chronic nephritis, rachitis, syphilis, rheumatism, tuberculosis, especially of bones and lymphatics and chronic suppurations will readily suggest themselves. Malaria and certain of the eutozoa and protozoa are frequent causes. Malignancy fortunately is very rare in children. Anemia is very frequently overlooked because the cheeks are not a fair index of the condition of the blood. One should watch particularly the mucous membranes of the gums and lower conjunctiva. There are certain general symptoms which should arouse our attention. The child looks badly nourished as a rule, is pale, and the muscles are soft and flabby. Fretfulness and a very capricious appetite, with poor digestion and sluggish bowels, cold and clammy extremities, restless sleep or insomnia are suggestive symptoms. The pulse is rapid and feeble; the heart sounds are often accompanied by hemic murmurs and a venous hum may be heard over the larger vessels. Particularly important to be remembered is the tendency to cold and catarrhal troubles in general, which are often ascribed to the weather rather than to their real cause. The treatment has relied mainly upon iron, which clinically in almost any mode of administration has proven of almost specific virtue. Milk is very deficient in iron content and it is not surprising that babies who take nothing but milk for a year or even longer should become anemic. By the eighth or ninth month it is always advisable to administer iron in the form of yelk of egg or the expressed juice of rare beef steak, or later the finely scraped beef muscle fibres which contain hemoglobin. An abundance of fresh air and sunlight and exercise are essential and should be insisted upon. These are particularly important in children with a tendency to catarrh of the respiratory tract.

Virginia Medical Semi-Monthly, April 10, 1908.

Amoebic Dysentery in the Southern States.—Dr. T. H. Boggs says that the treatment during the acute stage, the primary requisites are rest in bed, very limited liquid diet, fresh albumen water, then rice gruel with gradual addition of milk, and withholding all solids until the stools are formed. Morphine is invaluable in controlling the very frequent stools and pain. Purging is contraindicated during the acute stage. With the subsidence of the acute symptoms local treatment should be instituted. This is the only efficacious medication in the light of the widest experience. The whole colon is thoroughly irrigated with solutions of quinine, beginning at 1-5000 and increasing in strength to 1-500 in a few days. The patients' hips are well elevated and a long soft rectal tube is in-

troduced three or four feet into the large bowel. Then a quart or more of the blood warm solution is allowed to flow slowly in and is retained for from fifteen to twenty minutes, if possible. It is better to leave the tube in place during this time. If the rectum is the seat of ulcers and very sensitive it may be necessary to give a morphine or cocaine suppository or an injection of starch and opium before passing the tube. Other irrigating solutions recommended are silver nitrate 25 to 40 grains per quart, bichloride of mercury 1-3000, hydrogen peroxide one-half per cent. solution. But those of most experience give the quinine the preference. These injections should be kept up long after the stools are solid and until after repeated examinations with rectal tube and following saline purges no amoeba are found. Recently several authors have recommended caecostomy or appendicostomy in chronic cases, with irrigation of the bowel from above. This has apparently given most excellent results in a number of obstinate chronic cases in one series which had not responded to the rectal irrigations.

Prophylaxis.—The experience in the tropics has demonstrated that water is the most common carrier of the infection and it is here that we must guard against infection by boiling the water used for drinking and preparing food. It has also been shown that lettuce, celery, and other green vegetables and fruits may be a source of danger. Musgrave has shown that the resisting stage of the amoeba can resist long drying and even freezing so that sterilization by heat or adequate filtration are necessary wherever the infection is endemic.

The Mobile Medical and Surgical Journal, April, 1908.

The Prophylaxis and Treatment of Typhoid Fever.—Dr. D. J. Spotswood says as to the treatment of hyperpyrexia, The platitude "Water internally, eternally, and externally" better expresses the method of hydrotherapy than any detailed statement that could be made as to its value, he quotes Forcheimer "Fever must be looked upon as a normal reaction of the human system to some reagent, but this reaction must, if possible, be kept within bounds, for, within certain limits, the general metabolism can be changed so that the effects of fever upon the system may be diminished. But the object of hydrotherapy is not alone to reduce temperature, although the degree of temperature indicates its use, hydrotherapy when properly used, does much more than this; it acts upon the nerve centers; it increases respiratory interchange; it stimulates the peripheral circulation; it increases elimination by its effects upon blood pressure, and therefore acts as a general roborant; in few diseases has it been used with so much success as in typhoid fever."

To Curry (1787) is due the credit of first having used cold water in typhoid fever, as well as in other acute infectious diseases; but to Brand (1861) we are indebted for the formulation of a method and its introduction to the general profession. The author believes that the reduction of temperature in 95 per cent of all cases can be obtained by the wonderful Brand baths and sponging with ethylic alcohol and water, 25 per cent strength of the former.

The alcohol baths are used when for any reason the tub baths are impossible or very inconvenient. The patients hygienic surroundings of course should be as near perfect as possible. The room should be the largest and most comfortable in the house, and above all an abundance of pure air must be constantly supplied the patient. Absolute quiet should be maintained in the sick room and the presence of all unnecessary visitors should be prohibited.

The treatment of complications, such as intestinal hemorrhage, epistaxis, nervous symptoms, etc., must be taken up in another paper.

The Southern Clinic, April, 1908.

The Experience of a Man and of His Wife in Changing Spectacles.—By Dr. G. M. Gould.

Virginia Medical Semi-Monthly, April 24, 1908.

Principles of Surgery, Lecture XLV, Gangrene (cont'd)—Microbic Gangrene—Senile Gangrene—Diabetic Gangrene—Decubitus Gangrene—X-Ray Gangrene—Carbolic Acid Gangrene—Noma—Hospital Gangrene.—By Dr. Stuart McGuire.

Some Salient Points on the Proper Control and Examination of a Sick Child and the Value of the Symptomatology.—Dr. G. W. Cocke believes that the man who always carries a smile in his eye and a certain way with him can do more good by merely holding the baby a minute or two than the stiff, pompous or nervous clumsy doctor can accomplish in a whole day. His presence is hailed by the mother and sick child with equal delight; the approach of the other doctor is heralded by cries of the apprehensive little one and the weary expostulations of its mother. As mothers have a remarkable faculty of knowing what helps their little ones, the unpleasant doctor, no matter how clever, is likely to find his pediatric practice growing

less. On the other hand the man who cures the child has the confidence and love of the mother, and the doctor who treats her is very likely to become the family doctor. As a rule it is not difficult to win children, even when sick, but certain qualities and features are essential to success. First, never deceive a child; be gentle but firm and positive in action; spend a few moments getting acquainted. If you have to do a painful or disagreeable thing, tell the child, if he asks, that it is painful, but that it must be done to get him well and that other boys and girls have gone through with the same thing. It is often a good plan to offer some reward for good behavior and be sure to give it; never promise a child anything and not give it; they at once loose confidence in you. Take pains to save pain. A tube of ethyl chloride, a bottle of chloroform, a little cocaine solution will enable you to do many things without causing suffering and make many fast and lasting friends. Be gentle and try never to hurry and never cause the little one any more discomfort than can be avoided and always present the brightest side of things. Remember to keep the aim of examination in view, viz: To discover the nature and if possible the cause of the disease. This requires thoroughness and great patience. Very slight causes may produce very grave symptoms; and these often change with great rapidity. It is wise while the mother or nurse is talking to watch the child. The face and the expressions tell many stories to the trained eye and the actions tell more.

The Southern Practitioner, April, 1908.

Acute Obstruction of the Bowel Due to Mechanical Causes.—Dr. M. C. McGannon says that when the obstruction is due to fecal impactions it may usually be overcome by enemata and purgation. When gall-stones and enteroliths close the gut, spastic contraction is oftentimes a factor in the obstruction and internal medication for a time is advisable. However, if it does not speedily overcome the difficulty the case becomes one of surgical interference. The statistics of the treatment of intestinal obstruction, whether by internal medication, by the expectant plan, or by surgical interference, show a rather high mortality. During the last few years the results of surgical treatment have improved. This is due largely to the fact that delay in operation is not now so prevalent as it was formerly. Called into the presence of a patient writhing in agony caused by intestinal obstruction few of us can withhold the ever ready hypodermic syringe with its load of morphine pending our arrival at a diagnosis. This is not always necessary, since one dose of the drug will not so mask the symptoms as to prevent diagnosis. The effects of the narcotic soon wear off and the symptoms return with all their old time vigor and our suspicions should be aroused, our examinations completed, and definite conclusions arrived at before another dose is given. It is the administration of the second dose which is reprehensible and which cannot be too severely condemned. It is this second and many after doses that lulls the patient, his medical attendant and his friends into fancied security until the patient's condition becomes so serious that surgical aid is considered. These are the cases that occasion the high mortality after operation. This is not the mortality of operation but the death rate of delay. The administration of purgatives is oftentimes more harmful than is the exhibition of narcotics. No possible good can come from stimulating to greater action the already over-acting intestinal muscular wall. As a matter of fact purgation rather prevents than aids nature in her efforts to overcome the obstruction when it is outside the intestinal lumen.

New Orleans Medical and Surgical Journal April, 1908.

Non-Gonorrhoeal Prostatic Disease in Young Men and its Reflexes.—Dr. C. W. Allen after reporting a few cases says that the more he sees of the subjects of prostatic disease the more he is inclined to compare them to women with uterine affections. The entire prostate, while not the analogue of the uterus, the sinus pocularis representing that organ is nevertheless capable of giving rise to all that long train of reflex and nervous symptoms that we see in the subjects of chronic uterine disease. The prostate is richly supplied with nerves from the sympathetic, the great reflex nerve, the abdominal bram of Byron Robinson with all its vast connections ready to signal its disturbances by reflexes many and varied. To conceive a full appreciation of the possibilities of prostatic reflexes, one has but to consider the tremendous shock that sometimes follows such a simple procedure as catheterization. When diseased the symptoms usually begin locally with a sense of personal uneasiness or rectal pain, may be some sexual hyperesthesia and a few pains in the back of the thighs, later on the lumbar region, frequently very severe here, often incapacitating the subject from work and prompting the use of kidney plasters and remedies for lumbago. The sexual hyperesthesia may later give place to irritable weakness, and then to impotency, and we have a typical picture of the sexual neurasthenic; "the prostate is the sexual

heart." As the reflexes continue the nerve paths become more easily traveled, the symptoms reaching further and further like the tentacles of the octopus drawing in its victim. The stomach finally reached, adds to the list of symptoms its quota in nervous dyspepsia, the spine and head come in for their part and we have the picture of a general neurasthenic to be seen every day in our large G. U. clinics or drifting to other services, the original trouble having been forgotten or largely eclipsed by the great army of other complaints; symptoms only to be duplicated in the chronic gynecological patient.

Texas Medical Journal, April, 1908.

The Cause and Prevention of Rape.—Dr. T. E. Daniel believes that Justice Brewer's proposed remedy for rape and its consequences (lynching) is almost puerile. He proposes that in rape trials there shall be no appeal; but a swift execution to satisfy the outraged people. Why have a trial? A judicial investigation is for the purpose of ascertaining if the accused is guilty, and, if guilty, to fix the penalty. In every case where there is the least doubt, either of the identity of the accused or of the crime, there should be an investigation, but where there is no doubt as to either, why subject the victim—most frequently a tender young girl—to the shame, mortification and suffering incidental thereto, and the State to expense? It is a farce in those cases where the evidence is conclusive prima facie; the death of the fiend has already been determined upon. Indeed the lust murderer is outside the pale of the law. He has no rights that should be respected. He is a monster, a unit dangerous to society and should be eliminated. He should be killed—with as little ceremony as a community would put to death any other deadly animal—say a man-eating tiger, for instance, loose in their midst, or a rattlesnake. In less horrible cases of sexual crimes—such as are recognized by jurisprudence and are evidence of sexual perversion, exempli gratia, sodomy buggary pederasty—upon conviction before a court the offender should be rendered forever incapable of a repetition of the act, and of reproducing his kind, in whom the taint would most probably survive. This should be done by a surgeon upon order of the court and there should be a law upon our statute books authorizing it. Simple removal of the glands is not enough, for while that destroys the power of procreation, it in no degree lessens the libido or the power of erection and penetration. The remedy should consist of the ablation of the entire genital apparatus, for as stated castration does not remove the impulse nor the power, and Ellis says that "certain Roman ladies greatly affect this style of eunich for obvious reasons; vult futui Gallia non parere. A negro values the "witnesses of manhood" more than life, and would give up life with less reluctance. The fear of the loss of these possessions would have more terror and more restraining influence on his acquaintances and on the evil disposed—and the moral effect would be greater than that of shooting, hanging, or death at the stake.

Maryland Medical Journal, April, 1908.

The Bacteriological Examination of Milk.—Dr. W. R. Stokes says that when the milk from individual cows is found to contain excessive number of pus cells and streptococci, these animals should be regarded as dangerous milk cattle until a veterinarian has proven that they are not suffering from purulent inflammation of the milk ducts and glands. Doane and Bucklen of the Maryland Agricultural College have devised a more accurate method of estimating the leucocytes present in milk by means of the Thoma-Leiss blood counter and the author believes that this method should be used in determining the fitness of cattle for producing milk for human consumption. They centrifuge 10 c.c. of milk for four minutes in a graduated tube, remove the cream with a cotton swab and then syphon off the superabundant fluid, leaving about one-eighth of an inch of fluid above the sediment. Two drops of a saturated alcoholic solution of methylene blue is added to stain the leucocytes and the cells per cubic centimeter are estimated as are leucocytes in a Thoma-Zeiss counter. If 50 cells are counted in the entire ruled field there are 50 cells in 1 cubic millimeter therefore, and 500,000 in a c.c. Since the sediment was from 10 c.c. the count would be 50,000 leucocytes per c.c. When the leucocytes in 1 c.c. of milk are over 50,000 the cow should be carefully examined and if garget is present the animal should be excluded from the herd. Since 1897 at the Health Department the milk from 85 individual cows has been examined and it was found that 10 contained excessive number of pus cells and streptococci. All of these animals were examined by inspectors and were found to have clinical signs of inflammation of the udder. These animals were condemned and excluded from the herd. Although many outbreaks of typhoid fever, scarlet fever, and diphtheria have been traced to milk, yet the diphtheria bacillus has only been isolated from milk in rare instances and the typhoid bacillus has been found once.

Atlanta Journal-Record of Medicine, April, 1908.

Rest in the Treatment of Bright's Disease.—Dr. H. F. Harris believes that it is well established that a person at rest needs practically one-half of the amount of nourishment required while at active work, and that the functional activity of the kidneys depends upon the amount of chemical change that goes on in the body. The author does not assume that a treatment of this kind could restore kidney tubules that are entirely destroyed, but the fact that the patient is living is evidence that those still remaining are competent to keep life going, and if one can put a stop to the further advance of the disease the patient should be able to live out his allotted years. Unfortunately this treatment requires considerable time which makes the collection of statistics an exceedingly slow matter. The author has seen a patient who had undoubtedly suffered from Bright's Disease for a number of years previously apparently entirely recover in eighteen months. In this case the urine was loaded with casts and albumen and the patient just prior to the inauguration of the treatment had suffered two attacks of apoplexy, and a few months later had had a hemorrhage into the retina of one eye. Another patient who has been under this treatment for about seven years, and although he had lost complete sight of both eyes at the time he was first seen by the author, he is apparently now well in every particular. For a number of years now he has not adhered strictly to his treatment. Under rest in bed and milk diet the urine of patients frequently becomes normal in two or three months, but if they begin to take exercise or resume ordinary foods the albumen quickly reappears; the treatment should therefore last over a period of a year, and perhaps longer in some instances. When the patient begins to resume his ordinary method of living the urine should be frequently examined and if evidence of trouble reappears the patient must again be placed on the treatment.

Abstracts of the Leading articles of the month.

Glycosuria and Abdominal Tumors.—Evelt (Monats. f. Geb. u. Gyn.) was consulted about a woman, aged 41, subject for a year to abdominal pains and dyspnea. The period was perfectly regular, but a tumor had developed and a physician fancied that he could define a fetal head with clear ballottement. Dysuria set in, attempts at micturition causing spasmodic pains. Evelt found that the breasts, vulva, and cervix uteri showed none of the signs of pregnancy. The body of the uterus appeared to be the seat of a fibromyoma. There was a tense tumor posterior to the uterus and another, much larger, anteriorly; it was the latter which had been taken for a fetal head, and Evelt admitted that appearances were deceptive, and added that the patient herself believed that she was in the eighth month of pregnancy. On examining the urine it was found to contain albumen and also much sugar. All the usual tests for glucose were carefully conducted. The tumors certainly caused great inconvenience on account of their united bulk. There appeared to be none of the symptoms of diabetes besides the presence of much sugar in the urine. Evelt performed supravaginal hysterectomy, taking away a large cystic tumor of the left ovary and a smaller tumor of the right ovary together with the fibroid uterus. There were no complications during convalescence. One year after the operation the patient was in good health, and the urine was entirely free from sugar or albumen. It appeared that those abnormal compounds had both vanished from the urine directly after the operation in spite of unrestricted diet. Evelt believed that the glycosuria was due to pressure of the tumors on the pancreatic ducts. He refers to a case of glycosuria which was found to be caused by calculi in Worsung's duct.

Appendicectomy by Transverse Incision.—Chaput (Bull. et Mem. de la Soc. de Chir. de Paris) in a report on 3 cases of appendicectomy communicated by Duval, directs attention to a new form of external incision which he described for the first time in the summer of 1905. This incision, which is acknowledged to be a variant of that known as McBurney's, starts from the antero-superior iliac spine, and is carried inwards in a horizontal direction to the external margin of the rectus muscle, and, if it be found necessary, still nearer the middle line. It presents, Chaput holds, several decided advantages over other procedures. At the level of the spine of the ilium the fibres of the internal oblique and transversalis muscles are, it is stated, absolutely horizontal. There is consequently no need for so long a cutaneous incision as that in McBurney's method, which is carried across the muscular interstices. Moreover, the fibers of the two muscles being parallel, more exposure is afforded than by a separation of intercrossing fibers. In the horizontal incision there is no sacrifice of any of the nerves supplying the rectus muscle, and therefore much less risk of subsequent

weakness of the abdominal wall. Eventration, which occurs so often after some methods of appendicectomy, is less likely to occur if the dissection of the muscles be made between and not through their fibers. If it be necessary to drain the wound, there is much less risk of eventration after the horizontal than after other incisions. He says that his operation affords much more room than that of McBurney, and also that, if necessary, the wound can be readily extended in the direction of the middle line.

Placenta Previa, with Observations on Two Hundred and Fifty Cases.--McPherson (Bul. Lying-in Hospital) says that in 52,000 births, placenta previa occurred 250 times, or once in every 208 cases, and most frequently in multiparæ. The earliest deliveries occurred at four months in two cases. Only 39 per cent reached term. The attachment was central in 41 per cent of the cases; partial in 15 per cent, and marginal in 46 per cent.

There was a maternal mortality of 18 per cent. At term the fetal mortality was 44 per cent.

Delivery was accomplished in 176 cases by internal podalic version, in 29 cases by breech extraction, five cases by forceps, two cases by Caesarean section, 15 were born spontaneously, one by embryotomy, and six by craniotomy, while in 16 the method of delivery was not noted.

While the maternal mortality is high, it may, under suitable conditions, be considerably reduced. Fetal mortality, on the other hand, remains approximately the same as it did in the earlier days of practice of the obstetrical art, and we seem to have made very little progress in reducing it.

Tuberculosis of the Cervix Uteri.—Deletrez (Ann. Gyn. et Obst.) has operated upon an interesting case of tuberculosis of the cervix. The patient was 21 years of age, had never menstruated, but had suffered from abundant leucorrhea since the age of 14. For two months her general health had been unsatisfactory, there had been an increase in the leucorrhea, but no hemorrhage and no pain. A vaginal hysterectomy was performed, and six months later the patient was in excellent health. A microscopical examination showed an inflammatory infiltration of uterine tissues with typical epithelioid and giant cells. Small necrotic patches were discovered, but no bacilli were found. Tubercle of the uterus is very rare, and its limitation to the cervix is unusual.

Cases have been reported occurring in early childhood, but it is most frequently met with during the period of sexual activity. It attacks multiparæ as well as nulliparæ. Gaertner has demonstrated the presence of Koch's bacillus in the seminal fluid; it is doubtful whether infection is transmitted in this way, it is more probably due to bad hygienic conditions. Traumatism has been suggested as a source of infection, and the use of pessaries or vaginal manipulations. According to Brouha, in 1892 medical literature only recorded three cases of primary infection of the cervix, ascending to the uterus. Tuberculosis of the genitalia is generally secondary or descending, and is a complication of intestinal, pulmonary, or peritoneal tuberculous affections.

Clinically it is possible to confuse tuberculosis of the cervix with ordinary metritis, accompanied by an ectropion and erosions of the cervical mucous membrane; it must also be distinguished from a syphilitic chancre and cancer of the cervix. The diagnosis should be confirmed by a microscopical examination and a careful search for Koch's bacillus.

A number of cases are reported of cancer of the uterus associated with tuberculosis of other organs, and Azasz quotes a case of tuberculosis of the fundus and cancer of the cervix in the same uterus. The patient had pulmonary phthisis, and the infection had probably spread from the lungs by the vascular system. Hysterectomy, either vaginal or abdominal, according to the condition of the appendages, constitutes the best treatment for uterine tubercle, except where other organs show signs of active disease. When the lesion is small and localized, amputation of the cervix, or even curettage followed by local application, will suffice to arrest the aflection.

Myasthenia Gravis and Parathyroids.—Choostek (Wiener klin. Woch.) says that the basis of myasthenia consists neither in a primary disturbance of the areas of the motor nuclei in the medulla oblongata and the spinal cord, with the nerves which here take their origin; nor in a primary disturbance of the muscles themselves. Myasthenia apparently belongs under the heading of blood-gland diseases, as suggested by the peculiarities of the clinical picture; the course of the symptoms; the frequent complication with diseases now known to be caused by changes of the blood-glands; and the changes of the muscles in certain cases. The causative factor of myasthenia is indicated to consist in a functional disturbance of the parathyroid glands, by the frequent combination of tetany and myasthenia with exophthalmic goitre, suggesting a local or functional intimate relation of these glands to the thyroid. The conformity in the essential features of myas-

thenia with those of tetany on the one hand, and the diametrical contrast in the chief symptoms of these two affections on the other hand, point in a similar direction. Hypofunction of the parathyroids—as may be regarded as positively demonstrated—leads to tetany, whereas hyperfunction, or dysfunction of the parathyroids induces myasthenia. The cause of this functional disturbance may consist in changes of the parathyroid glands themselves, or in a disturbance of the nerve centers and paths which regulate parathyroid function. The thymus gland has no causative relations to myasthenia, its persistence pointing merely to the existence of an anomaly of constitution which favors the onset of the symptoms of a functional disturbance on the part of the parathyroids.

Improvement in Teaching and Studying Legal Medicine.—Buist, in The London Medical Lancet criticises the State for its lack of material and want of support in the study of legal medicine. He mentions defective teaching, and offers a number of suggestions for improvement. The State should recognize its duty in the matter and see that it does its share in educating and encouraging medico-legal experts. This done, the rest of the defects will adjust themselves automatically. The State always has in its possession opportunities for the investigation and collection of records. Let the country be divided into areas, and each area be assigned to a medical expert to devote his whole time to this work. Let him be called in all cases of moment and conduct the case in conjunction with the local practitioner. Under these circumstances there would be a stimulus for medical men to specialize and pay greater attention to the subject. Such experts, if appointed, would provide the material necessary for improving the teaching of the subject. In some cases these same experts would make admirable lecturers. This once done, the literature on the subject would improve, and the examining bodies would recognize the necessity of granting diplomas in legal medicine. Thus the medico-legal expert would take his place with the specialists in other branches of medicine, and the medical witness would earn greater respect and a higher status. There is a great fascination in the study of the many problems presented in the course of medico-legal inquiries. The opportunities are, it is true, not offered equally to all, but as every member of the profession is liable to be called as a witness in a criminal trial, it is of the greatest importance to all of us that everything should be done to encourage the study of legal medicine, and that the medical witness should be treated with a greater amount of respect. If the State does not give financial encouragement to medical men to act as witnesses, it is little wonder that, speaking generally, the profession gives so little attention to the subject. There is certainly no inducement held out to medical men to specialize on the subject and to devote their efforts to any investigation or research in this direction.

The Cure of Epithelioma by the Roentgen Ray.—Schiff, in The London Medical Lancet formulating the following conclusions:

The favorable effect of Roentgen rays on epithelioma is indisputable. The treatment with Roentgen rays must not, however, be considered in a category by itself; it must rather be looked upon as an alternative or as an addition to treatment by other methods. There are obviously biological differences in the various kinds of epithelioma which have so far not yet been sufficiently explained pathologically and anatomically, and on which the success of the Roentgen treatment is dependent. To aid the effect produced by the Roentgen treatment small operations may be done and the cautery applied according to the nature of the case. In those cases in which no favorable influence is produced by the Roentgen rays, at the latest after the fourth or fifth sitting, this treatment must be discontinued, as little more is to be expected from it. The intervals between the single sittings must not be too long; a more active Roentgen light—medium soft tube—with, of course, a careful covering of the healthy parts of the skin, is to be recommended. In the case of surgical operations a subsequent application of rays is eventually desirable. It is of especial importance to lay stress on the fact that by the application of Roentgen rays the patient is saved from an operation, and the result produced by the Roentgen treatment is not only equally good as regards the cure but much better as regards the subsequent appearance.

Some Experiences of the Ophthalmo-Reaction of Calmette.—Boyd in the Scottish Medical and Surgical Journal says the diagnosis of obscure tuberculosis is often a point of the greatest importance to the patient and to the practitioner. Much can be done by careful observation of weight, temperature, and the opsonic index; the use of tuberculin may help, but the necessity of confinement to bed and the frequent determination of the opsonic index stand in the way of its use by the general practitioner.

Calmette has recently given us a method of areiving at an accurate diagnosis which, if it stands the test of time, as it promises to do, should, on account of its extreme

simplicity, be of the utmost value in practice.

Calmette has shown that if a drop of a one per cent. watery solution of tuberculin be placed in the eye of a tuberculous person a definite local reaction follows. Within a few hours there is congestion of the conjunctiva, which passes into a definite conjunctivitis. The pupil is dilated. The maximum reaction appears within about twelve hours, and all traces of inflammation disappear in a few days. The reaction causes the patient but little discomfort. If the test solution be placed in the eye of a non-tuberculous person there is no reaction.

Calmette's results have been confirmed by a number of observers.

In carrying out the observation neither ordinary tuberculin nor Koch's older tuberculin should be used, as the glycerin it contains may irritate the conjunctiva and obscure results. Calmette advises a one per cent. solution of dry tuberculin precipitated with alcohol. This is dispensed as a powder, and can be dissolved in distilled water before use.

In all the control cases where the patient obviously did not suffer from a tuberculous affection the reaction was negative. The method is so simple that it should commend itself for use in general practice wherever doubt exists as to the presence of a tuberculous lesion.

Is it free from danger? One would expect that in those cases of obscure chronic tuberculosis in which the reaction is of such diagnostic help there could be no danger; and this is claimed for the method. One might hesitate to use it in a case of acute tuberculosis. The resistance of the conjunctiva must undoubtedly be lowered for the time being, and if any tubercle bacilli were in the circulating blood it is conceivable that they might attack the conjunctiva during the period of lowered resistance. Cases of acute tuberculosis, however, are not those in which the reaction is most required as an aid to diagnosis. It is the obscure chronic cases which at times present such difficulty of diagnosis, and it is in these cases that the reaction should prove useful and free from danger.

Contributions to Dysbasia Angiosclerotica (Intermittent Claudication).—Ydelsohn (Dtsch. Ztschrft. f. Nervenheilk) has studied the cases of 56 patients having intermittent claudication, mostly men. In 24 cases, abuse of tobacco could be positively excluded, whereas in four cases the abuse of nicotine was the only demonstrable cause. Alcoholism was determined in seven cases, and syphilis in four cases. Gout existed in four cases, and diabetes also in four cases. Marked general arteriosclerosis was present in five instances, and a number of the cases presented angina pectoris, and similar symptoms. In one case, the disease began at the age of 17 years; in four cases, between the 20th and 30th year. Almost all the patients were able to move about in the room without trouble. Cyanosis, varicose veins, pallor, atrophy of the calves, tenderness on pressure, etc., were of common occurrence. The dorsalis pedis was more frequently pulseless than the tibial artery. The younger the individual, the graver and quicker the course, as a rule, and the greater the risk of gangrene. The prognosis is aggravated by simultaneous flat foot, or corresponding anomalies in the brachial pulsation, absent or weakened radial pulse, etc. The absence of pulsation in the femoral or popliteal artery does not seem to possess particular importance for the prognosis.

Typical intermittent dysbasia is generally preceded by a preliminary nervous stage. The tendency of the affection to involve the other leg is suggested years beforehand by a fluctuation of the pulse-wave, or constant weakening of the pulse. Youthful patients, with general arteriosclerosis, suffering from intermittent dysbasia angiosclerotica, offer more favorable prospects of recovery than do patients of the same age having localized endarteritis. The treatment recommended by the author consists in the derivating method, massage of the body except the diseased leg, and attempts with Bier's hyperemia.

Four Cases of Adipositas Dolorosa (Dercum's Disease).—Sezary (Revue de Medicine) describes four cases of adipositas dolorosa, characterized by local or general deposition of fat, pain, asthenia, and psychic disturbances. The first patient, in whom one segment of the body was affected, also presented sensory disturbances, but there was a possible complication by alcoholic neuritis. While all these cases occurred in women, there was no etiological reason for assuming a connection of the adipositas dolorosa with changes in the ovaries, the thyroid gland, or the hypophysis. In two instances, the disease developed after childbirth. A relation to the menopause could not be determined. The first patient was syphilitic, another was tuberculous, and still another suffered from glycosuria. There was a fifth patient, who, in addition to Dercum's disease, presented aortic insufficiency and reflex rigidity of the pupils, possibly of syphilitic origin.

Among the various symptoms of this disease, one or the other may preponderate, may be absent, or obscured by the other manifestations. The obesity is either diffuse, or nodular, or it may affect one seg-

ment of the body. Any pressure upon the fatty tissue, which often develops after a period of weakness, is extremely painful and readily produces ecchymoses, which are referred to a vasomotor instability. At first the conditions frequently represent a more or less edematous swelling of the tissue, and this is followed by the formation, deposition, and accumulation of fat.

The Radical Operation for Cure of Chronic Disease in Highmore's Antrum Under Local Anesthesia.—Erdelyi (Pest. Med. Chir. Presse.) points out that this operation is necessarily done through the canine fossa, as otherwise no satisfactory view of the diseased interior is possible. Anesthesia is secured by hypodermatic injection of the part with a one per cent. solution of cocain. The nasal wall is likewise anesthetized with cotton pledgets soaked in a 20 per cent. cocain solution. The operation can be carried out with comfort and despatch by the rhinologist because of the minimum amount of bleeding.

Ovarian Hernia.—De Snoo (Zentralbl. f. Gynak.) reports that in the course of ten years in the Surgical Clinic at Utrecht 1 case of ovarian hernia was noted in 160 operations on women for femoral hernia; and 2 in 117 operations on women for inguinal hernia. Of the 2, the patient was two years of age in the first. The second occurred in a girl thirteen. There was a left inguinal sac containing an ovary in a state of cystic degeneration, and a Fallopian tube with a blind abdominal extremity, probably from secondary changes. A coil of small intestine, easily replaceable, lay in the sac. The pelvic organs were carefully explored, but no abnormality of the genito-urinary tract could be detected. Both of these cases of ovarian inguinal hernia recovered.

Suppurative Tenosynovitis.—Klapp (Berlin Medical Society) points out the poor functional results obtained in the treatment of suppurative tenosynovitis by simple incision of the tendon sheath and antiseptic measures. Statistics of eighty-nine cases treated in this manner only showed preservation of function in ten. These results have been much improved by the adoption of Bier's method, which consists in keeping the affected extremity in a condition of hyperemia for twenty-two hours, then removing the resulting edema by elevating the limb, and again inducing a hyperemia for another period, in connection with a number of small incisions. Of eighty-one cases, perfect functional results were obtained in 50 per cent. As the result of his own investigations, Klapp has sought to determine whether the incisions by promoting free drainage of the secretions were the essential factor in the cure. In six cases he made four lateral incisions into the tendon sheaths of the affected finger, with the results that in two a cure was obtained, while in four cases the tendon became necrotic. It would seem, therefore, that hyperemia contributes materially to the excellent functional results obtained from the Bier method.

Grafting the Whole Thickness of the Skin.—Young (Glasgow Medical Journal) by a modification of the Wolfe-Krause method believes that he has elaborated a plan which possesses the special advantages enabling the flap for transplantation to be easily and rapidly dissected out and the resultant wound to be readily closed. Given a patient with fairly good general health and avoidance of damage to wound or grafts during the first few days following the grafting process, every one of the grafts should live and flourish. Discoloration, blisters, or superficial desquamation of the grafts are exceptional. The complete integrity of the transplanted portions of skin is preserved even to the hairs and glands. Nor are these whole skin grafts liable to serious or substantial contraction subsequently. The steps in operative technique are as follows:

The skin required is removed from a suitable situation in the most convenient form —generally as a long ellipse, where much is required and it is necessary to subdivide. The incision is made by a few bold, clean sweeps of the knife, cutting at once down to the aponeurotic covering of the muscles.

The flap, so outlined, and including skin and subcutaneous fat, is set aside in warm saline or borax solution.

The fresh wound is forthwith closed completely by suture and dressed with aseptic care. Every detail of asepsis, it is needless to say, must be observed, not only at the operation but at the preliminary preparation of the skin of the part from which the flap is to be taken.

Removal of the underlying fat with the skin makes all the difference between a rapid procedure, lasting only a minute or two, and a slow and tedious process of careful and laborious dissection of the skin alone, which may require, as in one case cited, an hour and a half.

Also there is no advantage, but rather the opposite, in leaving a mass of fat intervening between the skin edges. Such intervening fat will either greatly limit the width of the skin flap removable, or necessitate much undercutting of the skin edges and undue traction by strong sutures, if

immediate closing of the wound, which is all imperative, is to be effected.

Having been sutured and dressed, the fresh wound is at once covered up altogether from possible contamination during the subsequent proceedings.

The surface to be grafted is now uncovered. If a fresh wound, made under aseptic conditions, the only preliminary to the application of the graft or grafts is the thorough checking of hemorrhage. If asepsis is not practicable, as, for example, where the denudation of the skin is due to burning, the granulating surface is gently irrigated with sterile saline or borax solution, discharge is carefully removed, and the surface is dried with sterile gauze. Any antiseptic employed must be followed by abundance of saline solution; strong antiseptics must not under any circumstances be used.

Before grafting is decided on for any granulating wound, the surface must be brought into a healthy state. All necrotic tissue and exuberant granulations should be removed in advance (some days before). The surface should be level and of a healthy rose-pink color. The edges should be smooth and clear of dried discharge and epithelial debris. This should be seen to a day or two before grafting is carried out.

It is unnecessary, and probably even a disadvantage, to remove the superficial layers of a granulating surface before applying the graft or grafts. This is contrary to the teaching of Thiersch, who removed these surface layers with the object of bringing the grafts into contact with the deeper, more mature, parts of the wound.

The flap of skin and skin is now taken from the warm solution into which it was put immediately on removal, and the fat is expeditiously removed. This is readily and quickly carried out by turning it over on the palm of one hand, and cutting away the fat with scissors curved on the flat. Very little practice makes the surgeon sufficiently dexterous, and the proceeding takes only a minute or two.

If only a small surface is to be covered, this may be done without division of the graft, but where the surface is an extensive one the flap may be divided up into as large a number of pieces as the surgeon thinks desirable, these being then distributed over it at suitable intervals.

A further saving of time may be effected if, while the surgeon is preparing the grafts. the surface to be grafted has been uncovered and prepared by an assistant.

It is not as a rule necessary, nor is it generally advisable, to suture the grafts in position.

After application of the graft or grafts, the whole surface is covered with some protective material, which will sufficiently resist or modify the pressure of overlying dressings, yet will, when moistened, lie closely upon the grafted surface, keep the grafts in place, and permit of adequate escape of discharge through its perforations or meshes. Such protective material as oiled silk or gutta-percha, suitably perforated, may be employed. Probably, however, the most convenient and satisfactory material is the "protective gauze tissue" described by Dr. J. C. Renton, of Glasgow, in the British Medical Journal of June 14, and prepared by M'Milan, of Glasgow. This "protective" need not be interfered with for several days, but from the very first the whole dressing external to it should be changed daily. If done with ordinary care, this should involve very little risk of disturbance to the grafts beneath the protective, and any small hypothetical risk is far more than counterbalanced by the advantage gained in the removal of discharge and soiled dressings, whose continued contact with the grafted surface, even if only for a few days, cannot but be detrimental to the local hygiene, and in particular to the chances of continued vitalization of the grafts.

The external dressing which has been found in every way most suitable is a "moist" dressing, which should be abundant and sufficiently absorbent. Plain, smooth, aseptic gauze, soaked with sterile saline or borax solution (not boracic acid. which to some patients is too irritating), is generally the most satisfactory dressing; it should be applied in liberal quantity, and should be covered with a sheet of gutta-percha tissue or other water-proof substance, so as to preserve the "moist" character of the dressing.

The whole is then supported lightly, firmly, and equably with wool and bandages, and the part is placed at rest in the most comfortable position, generally that ot complete muscular relaxation, except where counteracted.

Decapsulation or Splitting of the Kidney in Eclampsia.—Sippel (Zent. f. Gyn) claims that in 1902 he reached the conclusion—independent of Edebohls—that decapsulation or section of the kidney was called for in cases of eclampsia in which, after emptying the uterus, the eclampsia continues simultaneously with a cessation or diminution of the kidney function. Besides a tension of the kidney within its capsule as a cause of eclampsia, there are other cases in which the condition is due to a flabby kidney the seat of œdema. Contrary to Edebohls, he does not approve of kid-

ney operations during pregnancy. The uterus must first be emptied of its contents. If eclampsia still persists with suspended or markedly diminished activity of the kidneys, these should be decapsulated. Thus, increased tension will be relieved in the one set of cases, and edema in the other. If tension is not sufficiently relieved the question of splitting the kidney next arises. In the toxic kidney decapsulation alone is usually sufficient.

Puerperal Fever.—Gordon (British Medical Journal) holds that puerperal fever is wound fever. The wound is present after every labor at the placental site. When it becomes infected we may have: 1. Rapidly generalized septicæmia, from passage of the organisms directly into the veins of the part. This form is usually fatal from one to three days, and the circulating blood generally contains streptococci. 2. Direct extension through the Fallopian tubes to the peritoneal cavity, and resulting general suppurative peritonitis. 3. Extension as far as the Fallopian tubes only, with formation of adhesions, shutting off the general peritoneal cavity, resulting in the occurrence of pyosalpinx, pelvic peritonitis, or tubo-ovarian abscess. 4. Lymphatic extension, causing parametritis, which may go on to suppuration. The infecting agent in all forms is usually a streptococcus, but the colon bacillus is often found later. Occasionally the whole system becomes invaded by this bacillus as a terminal infection. The following points must be observed in treatment. 1. The avoidance of anything that may interfere with the closing of the placental site, such as the retention of placental tissue, etc. 2. Care should be taken that no other wound be made *e. g.*,, with the forceps. 3. Infection of the wound should be avoided be avoided by abstention from too frequent vaginal examinations, and by the wearing of rubber gloves. 4. Douching the vagina is seldom necessary and always risky. A rubber syringe should never be used. 5. The vulva should be kept covered with an antiseptic pad. There are two main modes of treatment: The passive and the active. The former is based on the belief that between the organisms and the host lies a barrier of leucocytes which should be left intact and not destroyed by any local disinfection. The writer, however, believes in active treatment—curetting and swabbing with strongly bactericidal chemicals. In the treatment of the septicæmic conditions themselves there is nothing equal to large quantities of sterilized saline solution given per rectum or subcutaneously. With these may be combined calomel and alcohol, both in fairly large doses. Antipyretic drugs are usually harmful; cold water is the best treatment for pyrexia *per se*. Anti-streptococcic serum is useful in a limited number of cases only, but is never harmful. The serum should be polyvalent, *i. e.*, prepared from many strains of streptococci, some of which should have been obtained from cases of puerperal fever. At least 50 c.c. should be given subcutaneously, and twice as much is preferable. The dose should not be repeated, as joint pains and pyrexia are apt to result. The type of case in which these bactericidal serums are of benefit is that in which the streptococci are present in the circulating blood. They probably do not affect the local lesion at all, and their value in checking absorption of toxins from the lesion is problematical. They are not supposed to have any antitoxic value.

The Chorea of Pregnancy.— Rudaux (La Clin.) writes that when chorea is first noticed in a pregnant woman a vigorous antitoxic treatment must be instituted. Milk diet is essential. The intestine must be cleared out by the administration of a purgative, followed by fractional doses of calomel and copious injections. The urine should be thoroughly examined, both as to quality and quantity. By these means the cause of the manifestation may be reached, but the nervous system is in a state of hyperexcitability and demands special treatment. He prefers large doses of chloral to other drugs, and would give from a dram to 3 drams in twenty-four hours if necessary. It may be administered either by mouth or by rectum. In the latter case a dram of chloral may be added to the yolk of one egg and 4 oz. of milk, and be passed into the rectum very slowly with a fine syringe. This will send the patient to sleep for some hours; she should only be roused to take milk at stated intervals. The chloral should be gradually increased from 1 to 2 or 3 drams, and then diminished as the symptoms subside. It should only be stopped when these have completely disappeared. Abortion or premature labor should only be undertaken when the life of the woman is in danger.

Do Ovarian Dermoids Become Cancerous?—Gorisoutoff (Zentralb. f. Gynak.) is of opinion, after considering a case under his own care, that primary cancer may develop in a common ovarian dermoid. His patient was a virgin, aged forty-five; the menopause had been completed two years previously. She had noticed for two months a swelling of the size of a fist in the hypogastrium, which caused dysuria and

constipation. It proved to be an intraligamentary tumor of the left ovary, which was successfully removed. The tumor was a dermoid, and bore a distinctly cancerous area, with flat cells derived from the stratified epithelium of the dermoid tissue. The patient, as is usually the case after ovariotomy for dermoid, recovered speedily from the operation. Two months later infiltration in the left half of the pelvis was detected, and it spread until the death of the patient within six months. No necropsy, however, is reported. The author states that over twenty cases of primary cancer of ovarian dermoids, which he considers authentic, have been published.

Intraperitoneal Rupture of the Bladder. Nordmann (Deutsche medizinische Wochenschrift) says that the most important factor in improving the prognosis of this condition is that all patients with an abdominal contusion shall be brought to a hospital as soon as possible and that all manipulation, especially catheterization, shall be avoided. In the hospital a single catheterization may be performed, using all possible precautions against infection. A history of intoxication, particularly if abdominal trauma of any sort occurred while the patient was in this condition, is of significance. The earliest and most important symptom of intraperitoneal rupture of the bladder in addition to the ineffectual attempts to void urine, is the reflex abdominal rigidity. If the diagnosis of an intraperitoneal rupture has been made laparotomy should be performed as promptly as possible and the bladder rent be sutured. The abdominal cavity is best cleansed by means of irrigation with saline solution. If the suture of the bladder is successful, there is no suppurative peritonitis, and the intestines are not greatly distended, the abdominal incision may be completely closed. A gauze drain should never be placed in contact with the bladder wound, as this is a frequent cause of urinary fistula. If there is doubt as to whether the rupture is intra or extraperitoneal, it is advisable first to do a suprapubic cystotomy; if exploration of the bladder then shows that the tear is intraperitoneal a laparotomy may be performed.

The Detection of Blood in the Feces.—Citron (Deutsche medizinische Wochenschrift) discusses the reliability of the benzidin test and the technique of its application. He considers it advisable to make use of a larger portion of the stool than previous investigatiors have done and recommends triturating the entire defecation with acetic acid and taking 5 c.c. of this extract for the test. The extract is treated with 25 c.c. of ether, or preferably with carbon tetrachloride, which is more satisfactory on account of its noninflammable nature. The latter extract is evaporated to dryness in a porcelain dish, and the residue is then rinsed into a test tube with several cubic centimeters of glacial acetic acid. The reagent is prepared by adding a portion of powdered benzidin the size of a pea to several cubic centimeters of glacial acetic acid. This is added to the fluid to be tested, and the appearance of an intense green or blue color in a few seconds on the addition of several cubic centimeters of hydrogen peroxide indicates the presence of blood. Performed in this way, the reaction is far more delicate than the guaiac or aloin test, but it is necessary that the patients be placed on a diet completely free from meat for a period of two to four days before the stool is examined. Observations on a considerable number patients suffering from various gastric disorders substantiated these views as to the reliability of the test. An interesting observation was the fact that in twelve cases of achylia a positive reaction was obtained seven times, a finding which leads the author to suggest that possibly the occult hemorrhages so demonstrated may have something to do with the anemia usually associated with this condition.

Resection of the Pancreas.—Ehrhardt (Deutsche medizinische Wochenschrift) says that gastric and intestinal surgery has now reached such a point of development that pancreatic operations are possible with good chances of success. So far about forty or fifty cases are on record in which larger or smaller portions of the gland were removed for primary or secondary new growths. The inaccessible position of the organ and its close relationship to numerous large vessels, such as the portal vein, vena cava, superior mesenteric vessels, and the pancreatico-duodenal vessels render removal of portions of a distorted and diseased gland exceedingly difficult. While the danger of diabetes or of disorders in fat digestion is not very great after these operations, a real peril is formed by the changes taking place in the cut surface through the action of the secretions of the gland itself. The author describes two cases in which he successfully removed considerable portions of the pancreas for malignant involvement secondary to pyloric carcinoma, the patient surviving the operation five months in the one case and over one and a half years in the other.

Treatment of Metritis by the Use of Cups Over the Cervix after Bier's Method.—Jaule and Loewy (La Presse Med.) have treated fifteen patients from metritis, either

simple or complicated by peritonitis, slight adnexal inflammations, or pelvi-peritonitis, by means of a speculum from which the air is exhausted by a syringe after the cup is in place. Daily sittings were given except when pain was produced. In these cases the application was made every second or third day. In some cases pains were severe, while almost every application made for the first time was somewhat painful, the pain being such as is felt at the menstrual period by most women. The cervix becomes of a violet color when suction is applied, and mucus or pus present in the cervical canal is sucked out. If there is an ulceration a small amount of blood flows from it. On the removal of the cup the cervix is elongated, violet colored, and covered with coagulated mucus and blood. Any ulceration becomes of a blackish color. Flow of pus or blood at once stops. Pain is not felt after the application, but the hypogastrium remains sensitive for some hours. After several sittings the pelvic congestion is lessened, symptoms of metritis and parametritis are relieved, and ulcerations heal and entirely disappear.

Spirachaeta Pallida.

Folet (Le Tribune Medicale) recommends the following stain: Glycerine, gm. 40; acid fuchsin, gm. 2; glacial carbolic acid, gm. ½. Mix and filter after solution. This may be preceded by methylene blue, gm. 2; glycerine, gm. 40; ac. carbolic, gm. ½ to counterstain. In examination of saliva, to a loop of the fresh secretion on a slide add a minute quantity of fuchsin stain, apply cover glass and examine; the counterstain may also be employed. The following solution is suggested as a substitute for Giemsa's: Chloroform, gm. 40; methylene blue, gm. 2; acid fuchsin, gm. 25; carbolic acid, gm. 50; for specimen stain wash with water or, if necessary, alcohol to remove precipitate and examine.

Etiology and Pathogenesis of Rickets.

Antonio Iovane and Salvatore Forte (La Pediatria) have undertaken to prove experimentally that one of the chief, although not the only cause of rickets in children is the absorption of the products of dyspepsia, gastro-enteritis, and diarrheal diseases. To this end they injected subcutaneously into rabbits alcoholic and watery solutions of the feces of children suffering from rickets and gastro-intestinal troubles. They succeeded in producing in nearly all the animals experimented on transformations of the bones very similar to those found in rachitic children. The bones were markedly softened, the amount of calcareous material in them was diminished, and the shaft of the long bones was curved as in rachitic children. The animals walked weakly and the belly hung down so as to touch the ground. The layer of cartilage between epiphysis and diaphysis was thickened and the cartilage cells were found infiltrating the spongy bone. All the histological lesions resembled the conditions found in human rickets. The authors believe that they have demonstrated that the poisonous products of intestinal malassimilation absorbed into the system of the child go far to produce the condition denominated rickets.

History of an Epidemic of Puerperal Fever from Streptococci.—Gonnet (Lyon Medical) gives the history of an epidemic of puerperal fever occurring in the University Obstetrical Hospital. Although such epidemics are much less frequent than formerly and are of less severity, still they occur at the present day. The source of infection may be brought into the ward by any case that has been subjected to repeated examinations before admission, and the cause of the infection in the first case is believed by the author to be always the hand. The cause in general is the streptococcus pyogenes. The only means of putting an end to the epidemic is the prompt isolation of each victim as soon as the infection is discovered. The danger of contamination exists during the latent period of incubation, while many cases are insidious, accompanied by slight elevation of temperature and few uterine signs. The possibility of the early recognition of the streptococcus in the lochia is most important. As soon as a single streptococcus case has occurred in a ward a systematic examination of the lochia of each patient in the ward should be made daily. We must have a means of recognizing the streptococcus quickly in cultures, and the use of blood-agar gives us such a means. This means has been used in the hospital mentioned, where there are several confinements every day. Several other micro-organisms have been found in the lochia, especially certain anaerobes. The epidemic began with the arrival of a patient whose membranes had been ruptured three days before entrance and who had submitted to many vaginal examinations. Delivery was nevertheless normal. Two days later there was a rise of temperature and pulse, and streptococci were found on the blood-agar. The case was promptly isolated, but new ones began at once to occur among those delivered in the same room. There were ten cases in all, of which the author gives the histories. There were present other micro-organisms, but of feeble pathogenic quality. When the anaerobes were present in numbers the temperature

rise was moderate. In one half of the cases the culture contained only streptococci; in the others there were staphylococci. When there were few colonies, isolated, and easy to count there was a mild infection. The contagion is very rapid and easy; it is only necessary for the patient to remain a few hours in the same room with an infected woman to begin to show streptococci. It is propagated by the hands of the attendants, rarely directly from one patient to another. The persistence of the streptococcus in the genitals is very variable. Even after the temperature has fallen there may be streptococci in the discharges for a long time, and they are always dangerous. Streptococci of a latent type are frequent. Without any symptoms the germs are still present, and such cases are very dangerous to other patients. The examination of the blood is most important, the prognosis being fatal when the germs are found in it. The prophylactic measures and those necessary to stop the spread of the epidemic are early examination of the lochia of all suspects and isolation of all cases at once. As soon as the temperature reaches 38 deg. C. the patient should be isolated.

Syphilitic Gumma of the Mammary Gland

Danel (Jour. des Sci. Med. de Lille) records a somewhat rare case of gumma of the mammary gland. There are very few leported cases of syphilitic growths in this rocation. The patient gave no history and no evidences of having had syphilis, neither had it. The author believes that it was a true case of hereditary syphilis. The gland, when first seen, had already ulcerated and showed a mass of grayish tissue exuding typical gummatous secretion. There was almost no pain and the axillary glands were not involved in the growth. The patient's general condition was excellent. There was no cancerous odor. Antisyphilitic treatment gave good results at once and in one month cicatrization was complete. The cause which determined this location for the disease is unknown. There is some difficulty in diagnosis from tubercular lesions of the mammary gland, especially when the gummata are multiple. When ulceration has occurred it should be easy. Age, general condition, absence of glandular involvement, and the evolution of the growth must all be considered in the diagnosis.

Sudden Death in Heart Disease.--Kisch (Muench. Med. Woch.) finds from a study of 156 cases of sudden death in patients with heart disease that prior to the age of thirty there is very little tendency to sudden death from cardiac lesions. Indeed where there is good compensation sudden death is almost as rare as in people without heart trouble. From thirty to fifty the number of sudden deaths increased progressively, and after the age of fifty valvular lesions form a factor which under certain pathological conditions may cause sudden death. As regards the conditions of the heart and vessels in these 156 cases thirty-five were cases of cor adiposum, thirty-two of myodegeneratio cordis, fifty-nine of endarteritis chronica, thirty-six of endarteritis aortæ, seven of sclerosis of the coronary arteries, thirteen of mitral insufficiency, nineteen of mitral and aortic insufficiency, thirteen of aortic aneurysm, three of rupture of the heart, thirty-six of chronic nephritis, twenty-one of chronic emphysema of the lungs, and seven of cerebral hæmorrhage. It happened most often in persons with very fatty hearts and in persons with general arteriosclerosis. The immediately actuating cause is sometimes difficult to determine. Mental excitement is sometimes sufficient, sometimes it is caused by an increase of the blood pressure. Hereditary and meteorological influences also seem to take a part.

Tobacco Smoke.--Lehmann (Muench. Med. Woch.) states that nicotine is an uneven mixture of a number of substances and a very strong poison. He does not think nicotine responsible for all the toxic symptoms produced by smoking and questions why, if nicotine is responsible, children exhibit symptoms of apparent nicotine poisoning after smoking parts of plants that are free from nicotine, why cigars that contain an equal amount of nicotine differ greatly in their effects, why cigars that are rich in nicotine are frequently milder than others that are markedly poor in nicotine, and why cigar tobacco seems to be so much stronger when smoked in a pipe.

Ovarian Cyst and Pregnancy.--Martin (Arch. Prov. de Chir.) reports a case in which a primipara, aged 17 years, in the seventh month of pregnancy presented decided symptoms of a suppurating dermoid cyst of the right ovary. In consequence of abdominal tenderness with rigors and fever, and as these grave symptoms were evidently due to the ovarian tumor and delivery was impossible under such conditions, Cæsarean section was practiced, followed first by removal of the suppurating and ruptured cyst, and finally by total abdominal hysterectomy. The laparotomy wound was completely closed by sutures, and drainage established by the vagina. Both mother and infant recovered after the operation. In this case, the author states, laparotomy for removal of the ovarian tumor was the only possible plan of treatment. The operation

was performed with the view of simply extirpating the cyst and of allowing the uterus to remain and pregnancy to take its course, but the presence of a large center of infection in the pelvis threatened the life of both mother and child, and as both ovaries were diseased, the uterus, if it could have been retained, would have been useless, and probably a source of danger. The author refers to other cases in his practice in which he successfully removed ovarian growths during pregnancy, and states that his personal experience of such complication has led him to support the view that every ovarian cyst diagnosed in the course of pregnancy demands operative intervention. The surgeon, it is held, should act with the object of preventing a double danger—that of torsion, or rupture of the cyst, caused by pregnancy, the other of abortion, or grave dystocia due to the presence of the cyst.

The So-Called Rheumatic Iritis.—Higgins (Lancet) believes that many cases so-called are really of gonorrheal origin, while the patient may never have had arthritic symptoms. The chief distinguishing features are these: it is painful, often severely so, there are swelling of the iris, generally much photophobia, a strong tendency for adhesions to form, though there is no very great amount of exudation, with much ciliary and conjunctival congestion. There are also a decided inclination to contraction of the pupil which strongly resists the action of mydriatics of which there is often a marked intolerance; a tendency to increased tension; a general intractability, rendering treatment most difficult and its results most disappointing; and an unlimited capacity for recurrences continuing through any number of years. As to the mode of origin the author suggests that in all probability, in many men who have had gonorrhea severely and frequently, there is left for any number of years in some part of the urino-genital apparatus a very much attenuated virus which gives no trouble locally, but from time to time becomes more active, and though still setting up no local irritation is capable, after absorption, of causing inflammation in synovial membranes or in the iris; in fact, it looks almost as if the iris becomes on occasions an excretory organ and tries to eliminate the poison, receiving considerable damage to itself in the attempt. There must also be a personal element or an idiosyncrasy in those who suffer, because the proportion of persons who have iritis to those who have had gonorrhea is very small indeed. The treatment of this form of iritis is very unsatisfactory. Mydriatics irritate and rise if torsion occurs frequently, so they must be used with caution. Hot sedative applications are serviceable. Cocaine and adrenalin should be avoided. While giving immediate relief, the latter is but temporary and the after-vascular paralysis leaves the patients worse than before. Internally we should flush out the system by purgatives and copious draughts of hot water, give mercury, iodide, quinine, etc. Salicylates are unreliable. Aspirin will relieve pain. Alcohol should be avoided and the integrity of digestion carefully maintained.

The Influenza Bacillus as a Cause of Fatal Endocarditis after Eight Years?—Smith (Lancet) suggests that the patient may have been an "influenza carrier" and attaches a question mark to his title, showing that he desires the verdict of his readers as to the truth of the proposition he advances. The patient, a man of 45 years, was admitted to hospital in a condition supposed to be a relapse from typhoid fever. He had had influenza eight years previously. His immediate illness was of two months' duration. At about the end of the first half of this period a cardiac murmur was audible. Later the lungs began to be affected and the murmur increased in intensity, later diminishing. The patient died from progressive asthenia. Autopsy showed a verucose endocarditis of the mitral valve with, in the organs, the usual changes due to endocardial infection. Blood cultures taken during life were negative, as they died out before the bacillus found in them could be induced to grow, but its morphological appearance was typical of influenza and its behavior on artificial media left no doubt that it was the true influenza bacillus. The author says that we have in this case a positive demonstration that the illness was due to the influenza bacillus, notwithstanding the fact that it was called typhoid fever and did present what are commonly accepted as the principal features of that disease. It began with severe headache and bronchitis and diarrhea, and with these were associated an enlarged spleen and a rash said to be that of typhoid fever. As no bacteriological test (Widal) was made at that time one cannot wonder at a diagnosis of typhoid fever being arrived at.

A Cavity of the Lung Successfully Treated with Ozone.—Stokes (Lancet) reports the case of a man who had pneumonia with pleurisy followed by empyema for which portions of ribs were resected in front and behind. The posterior wound healed satisfactorily but the anterior did not. The discharge became offensive and putrid and he became septic. He was treated with a vaccine on the Wright principle and in due time a small piece of lung tissue came away with a subsidence of the sepsis.

There was left a lung cavity and sinus extending over six inches from the chest wall and communicating with the bronchi. This cavity was treated with ozone gas injected under pressure, and after a course of treatment carried out on thirty different days extending over a period of seven weeks the patient was cured. The author says that the bacteriological changes which took place confirm the following statements: (1) Micro-organisms that are under healthy conditions good and useful will under unhealthy conditions become hostile; (2) that unhealthy microorganisms require unwholesome matter for their nourishment; (3) that ozone and oxygen act by so changing and purifying the discharges that unhealthy microorganisms, being deprived of the matter necessary for their existence, decrease and finally disappear; and (4) that oxygen and ozone have this effect on every microorganism he has ever been able to discover in wounds or suppurating surfaces except the staphylococci, which under these conditions increase in number and often in size. These conclusions are the result of observations and microscopical examinations of the pus from some 500 cases treated with oxygen and ozone. In the foregoing case, before commencing the treatment a specimen of pus was taken from the wound and a culture was made from it for microscopical examination. This was repeated at intervals during the treatment. The microphotographs taken of the slides that were prepared show steady decrease and final disappearance of those microorganisms that are hostile to healing, and a steady increase of the staphylococci which under the influence of ozone and oxygen always increase in number and often in size as the healing process goes on.

Book Notices.

The Conquest of Cancer; a Plan of Campaign. Being an account of the principles and practice hitherto of the treatment of malignant growths by specific or cancrotoxic ferments. By C. W. Saleeby, M. D., F. R. S. (Edin.). New York. Frederick A. Stokes Company. 1907.

Dr. Saleeby bases his work and conclusions on the theory advanced some time ago by Dr. Beard that cancer is a warring "lævoman" inclosed in the tissues of the normal or "dextroman," and that a destructive action is exerted by the pancreatic ferments on the growth. In other words, the book is an attempt to vindicate the more or less widely advertised "trypsin treatment" of cancer. The author believes that the cause and nature of the disease has been found and that it remains only to find a definite method by which a cure may be brought about. The book is addressed to the lay reader rather than to the medical man, but its technical character places it rather beyond the average layman whose ignorance along these lines would hinder a correct appreciation of conclusions drawn by the writer.

Why Worry? By George Lincoln Walton, M. D., Consulting Neurologist to the Massachusetts General Hospital. Philadelphia and London. J. B. Lippincott Company. 1907. Price, $1.00 net.

It is said that the habit of "worrying" kills more people than any other cause. Few people are there who do not worry, and the habit is not to be overcome by unaided resolution. The author of this little volume offers some homely illustrations and commonplace suggestions among which the victim of the worry habit may find something to turn his mind into more healthy channels. He would not transform the busy man into a philosopher of the indolent and contemplative type, but rather enable him to do his work more effectively by eliminating undue solicitude. The doctor will find the book a helpful prescription to place in the hands of those patients whose habit it is to refuse to allow the physician to estimate his troubles, but insists constantly that he is in need of physic, while the medical man knows his trouble is chiefly worry.

Practical Fever Nursing. By Edward C. Register, M. D. London and Philadelphia: W. B. Saunders Company. Pp. 352. Price 12s. net.

There must always be a difficulty in deciding how much information is due to a nurse, where the point may come at which too great a knowledge of theory or detail will hamper her, and what is the level of learning to which she must attain if she is not to be inefficient. Dr. Register has prepared this volume with the object of presenting to nurses a working text-book which will completely cover the field of fever nursing and in every word that he has written he must have felt the difficulties which we have indicated. We agree with him that a nurse before she can intelligently care for a fever patient must have some knowledge of the disease and its medical treatment, but we do not think it necessary that she know the cause and signification of all the symptoms that may arise; and as for familiarity with the pathological processes going on within the body of the febrile patient—well, knowledge of these would constitute a very advanced pathologist. We doubt whether the practical duties of the nurse in fever

cases will become easier for her to discharge because she has learned the etiology of pulmonary tuberculosis and the theory of the causation of yellow fever. Having said this much let us add that the valuable information which Dr. Register decides should be given is put in the simplest and clearest form, well expressed, and easy to be assimilated, so that undoubtedly, a very intelligent nurse on reading the book could hardly fail to take a deeper interest in her patients. The first part of the book which deals with general considerations, the practical duties of the nurse in fever cases, the preparation of the more common articles of diet to be used in fever cases, together with information about her taking the pulse and temperature, and so on, is excellently planned and put together; it is the second part of the book where the special pathology of the various fevers is discussed which strikes us, in spite of Dr. Register's resolute intent to be simple, as being a little out of place.—The Lancet, London, Nov. 16th, 1907.

Righthandedness and Lefthandedness, with Chapters treating of the Writing Posture, the Rule of the Road, etc. By George M. Gould, M. D. Philadelphia and London. J. B. Lippincott Company. 1908. Price, $1.25 net.

Numerous theories have been advanced as to the origin of righthandedness and lefthandedness but after all have been studied one is left with the baffling conclusion that the mystery is still unsolved. Dr. Gould lays down the proposition that righthandedness originates in righteyedness and with his usual facility proceeds to prove his theory by the most abstruse and wonderful mass of evidence. He says that every physician and especially every ophthalmologist, absolutely every orthopedist and neurologist must in the future concern himself vitally with the matter.

Transactions of the American Pediatric Society. Nineteenth Session held at the Arlington Hotel, Washington, D. C., May 7-9, 1907. Edited by Linnaeus Edford La Fetra, M. D. Volume XIX. Reprinted from Archives of Pediatrics, 1907-1908. E. B. Treat & Co., Publishers. New York. 1908.

The volume contains a number of valuable contributions with reports of learned and interesting discussions.

Saunders' Forthcoming Books.

Messrs. W. B. Saunders Company, medical publishers of Philadelphia and London, announce for publication before June 30th a list of books of unusual interest to the profession. We especially call the attention of our readers to the following:

Bandler's Medical Gynecology—Treating exclusively of the medical side of this subject.

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Volume II, Kelly and Noble's Gynecology and Abdominal Surgery.

Volume IV, Keen's Surgery.

Gant's Constipation and Intestinal Obstruction.

Schamberg's Diseases of the Skin and the Eruptive Fevers.

John A. DaCosta, Jr's. Physical Diagnosis.

Todd's Clinical Diagnosis.

Camac's Epoch-Making Contributions in Medicine and Surgery.

All these works will be profusely illustrated with original pictures.

Practical Fever Nursing. By Edward C. Register, M. D., Professor of the Practice of Medicine in the North Carolina Medical College. Octavo volume of 352 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1907. Cloth, $2.50 net.

The nurse can hardly know too much of medicine, provided she ably seconds the physician, who must trust her powers of observation as well as execution. This work of 350 pages leaves little to be said to the nurse about usual febrile conditions. To greatly increase the matter covered under "General Considerations" would add nothing to clearness. In directing attention to the sick room, the value of pure air and the best means of obtaining it demand increasing emphasis. For too little is made of this matter in home as well as office. Here we do find, the especial need of the patient with pneumonia, brought to the front. The diet of the sick, finally to be left to the physician of course, may well receive much attention from the nurse who should be able to suggest and prepare in some considerable variety. The relation of fever and symptoms to the different organs of the body, is well explained so that what might be an enigma to nurse or patient may not be the source of undue anxiety. On the subject of prevention, that growing subject, there are twenty-five pages upon the wise use of various disinfectants. The study of minutiae for cleanliness of room and patient is always profitable. Physicians may here hardly be too explicit even if they put directions in writing. Especially true is this in typhoid fever where the nurse is so requisite. In giving treatment for typhoid, Salol is the only antiseptic named. Yeo's Chlorine water deserves mention if not acetozone, both requiring the large amounts of water recommended and so helpful. Other forms

of milk besides the sweet or butter milk preferred by the author are worthy of mention as peptonized and koumiss, nor would the writer mention antipyrin as an antipyretic in typhoid. With these exceptions this article is excellent.

In the Carolinas, homes may not be as air tight, but in the North the ventilation may well and profitably be studied by the practitioner.

The author is a man of years and experience, and one to whom experience has been synonymous with progress and discrimination. His judgment is ripe and his wisdom full; his opinion and his precepts deserve respect and observation, because they have been tried out in the crucible of his own long and successful practice. And every word bears the witness of this genuine authority.—Chicago Medical Standard.

The Government's Food Expert.

It was his experiments with food that brought Dr. Wiley fame. He began work along this line in 1885, when not a State in the Union had a food commissioner. Under general authority to make "such investigations as pertain to the interests of agriculture," Dr. Wiley began to purchase samples of various kinds of food, carried them off to his workshop for analysis, and found some interesting results. Part of the lard turned out to be beef fat. A considerable proportion of the maple sugar, molasses, and honey was found to be glucose. Beers and wines were adulterated to an alarming extent. In various prepared foods in which preservatives were used he found harmful quantities of salicylic acid, formaldehyde, sulphate of copper, borax, and benzoate of soda.

Bulletins were issued giving information of the insidious poisons in some of the foods offered to the public, but at first little interest was shown. To convince the people as a whole Dr. Wiley decided to give them a unique object-lesson. Seven years ago he organized what is known as the "poison squad," so-named by the Washington newspaper correspondents, who had fun with it, but have widely advertised it ever since. Twelve young men, employees of the bureau, volunteered as subjects for experiment. The men pledged themselves to remain as boarders under the direct care of Dr. Wiley for a year. They were given the best selected food in the market, and when about half way through each meal every member of the squad was given a small capsule containing a preservative of the kind that was being used by some manufacturers in preserving foods. The amount was approximately that which the users of such foods took into their systems every day. No member of the squad was allowed to eat anything outside of the rations put before him at the Government boarding-house. At the end of a year Dr. Wiley had some startling results to place before the public. He had proved his case by actual experiment. The poisons taken with the foods had broken down the health of a number of the men. The conclusions from the data gathered from these experiments have been of vital interest to physicians and chemists the world over.—From "Dr. Wiley, Government Chemist," by Snell Smith, in the *American Review of Reviews* for May.

The Insanity of De Maupassant.

But there are many reasons to believe that Maupassant might have escaped insanity, had it not been for his strenuous life. His mother was affected in the same way, but the external circumstances that brought actual madness in her son were avoided in her case. With his brother, insanity was the result of an accident. We have pointed out before that Guy, as a young man, was unusually strong; and, being of an extremely active temperament, he scorned all advices from friends or physicians, not to overwork himself. When he came to Paris his fondness for rowing had made him adopt a regime which, as a doctor has it, "would have been too much for a young athlete at Oxford or Cambridge." But, besides rowing, he worked in his office every day, and he began to write verses and stories. And later, when he gave up rowing, he went into society life, which, as physicians tell us, is particularly trying for the nerves when one has not known it before thirty. Moreover, his literary production at that time was amazing. By and by he made another mistake in taking strong stimulants, such as cocaine, morphine, and especially ether. All this combined was bound to react within comparatively few years upon a constitution predisposed to mental trouble. The physical sufferings were gradually accompanied by fits of melancholy, strange freaks of imagination, regular hallucinations. Maupassant had exactly the same experiences as those related in some of Poe's stories, or in Musset's poetry, especially in the latter's "*Nuit de Decembre*." One night, among others, we are told that while sitting at his table and writing, Maupassant thought that he heard some one opening the door; he turned around and was confronted with his own person entering the room, walking towards the table, then sitting down in front of him, and proceeding to dictate his work.

Instead of trying to avoid further experiences of the kind, Maupassant only plunged deeper into that dangerous atmosphere by making use of his disorders of the brain

for his stories. With his antecedents, it would have been a miracle if insanity had been avoided.—Albert Schinz in *May Lippincott's*.

The College of the Future.

The college chapel was thronged with admiring parents and friends who had come to witness the commencement exercises. Amid an expectant hush the venerable president arose and summoned the graduates to receive their hard-earned diplomas.

The sturdy football team were awarded the coveted sheepskins, while the wall echoed with the applause and cheers. The lithe track athletes in running attire received their well-merited degrees, and the Varsity crew, oars in hand, gracefully accepted their honors.

As the exercises were concluding and the orchestra about to play, a member of the faculty stepped reluctantly forward and touched the president's arm, whispering in his ear at the same time. In apparent annoyance the dignitary turned to the audience:

"Pardon me, ladies and gentlemen, but I have made a slight omission. I understand that one student should receive the degree of bachelor of arts. Will he kindly step forward as quickly as possible?"

A shrinking young man stepped forward apologetically, a diploma was thrust in his hand, and he was haughtily waved aside, while the orchestra struck up a two-step. —*June Lippincott's*.

The real meaning of the White House conference of Governors and other citizens, held on May 13-15, at the invitation of President Roosevelt, is set forth editorially in the June *Review of Reviews*. Just why the conference was called, and what lines of action were developed are clearly stated. The newspaper reader who may have been more or less confused by the daily reports of the proceedings will find in the *Review* an illuminating summary of the whole matter.

Miscellaneous.

New Subscribers for the Month of May.

Dr. D. J. Jones, Palmetto, Fla.
Dr. Robt. J. Bigelow, Oconee, Fla.
Dr. W. H. H. Cobb, Goldsboro, N. C.
Dr. J. R. Paddison, Oak Ridge, N. C.
Dr. Geo. P. Reid, Forest City. N. C.
Dr. Geo. Young, Forest City, N. C.
Dr. Edw. J. Peck, Hot Springs, N. C.
Rutherford Hospital, Rutherfordton, N. C.
Dr. L. D. McPhail, Rockingham, N. C.
Dr. W. W. Craven, Huntersville, N. C.
Dr. W. M. Stone, Dobson, N. C.
Dr. W. B. Patton, Cross Anchor, S. C.
Dr. E. E. Klutz, Troutman, N. C.
Dr. W. J. Vestal, Lexington, N. C.
Dr. C. N. Peeler, Charlotte, N. C.
Dr. S. E. Pennington, Sturgills, N. C.
Dr. R. H. Garren, Bessemer City, N. C.
D.s. McNairy & Moore, Lenoir, N. C.
Dr. C. L. Wilson, Lenoir, N. C.
Dr. J. S. Wise, Lincolnton, N. C.
Dr. L. A. Crowell, Lincolnton, N. C.
Dr. Jno. W. Saine, Lincolnton, N. C.
Dr. Jno. B. Wright. Lincolnton, N. C.
Dr. Geo. H. Costner, Lincolnton, N. C.
Dr. R. W. Petrie, Lincolnton, N. C.
Dr. C. J. H. Gaylord, High Point, N. C.
Dr. G. A. Gerran, High Point, N. C.
Drs. Hill & Hill, Lexington, N. C.
Dr. E. J. Buchanan, Lexington, N. C.
Dr. W. B. Robertson, Burnsville, N. C.
Drs. Tucker & Tucker, Greensboro, N. C.
Dr. May S. Miles, Greensboro, N. C.
Dr. John T. Burrus, High Point, N. C.
Dr. J. R. Reitzel, High Point, N. C.
Dr. W. J. McAnally, High Point, N. C.
Dr. G. A. Brown, Mt. Ulla, N. C.
Dr. W. A. Hoggard, Woodville, N. C.
Dr. C. W. Banner, Greensboro, N. C.
Dr. John Thames, Greensboro, N. C.
Dr. B. B. Williams, Greensboro, N. C.
Dr. Geo. W. Norman, Pomona, N. C.
Dr. S. G. Jett, Reidsville, N. C.
Dr. Wm. N. Mebane, Hillsboro, N. C.
Dr. J. A. Crouse, Gibsonville, N. C.
Dr. J. V. Dick, Gibsonville, N. C.
Dr. Chas. W. Moseley, Greensboro, N. C.
Dr. Julius H. Hilton, Greensboro, N. C.
Dr. J. P Turner, Greensboro, N. C.
Dr. Thos. R. Little, Greensboro, N. C.
Dr. R. L. Holloway, West Durham, N. C.
Dr. E. H. Bowling, Durham, N. C.
Dr. John M. Manning, Durham, N. C.
Dr. J. N. Mills, Durham, N. C.
Dr. B. U. Brooks, Durham, N. C.
Dr. C. A. Adams, Durham, N. C.
Dr. J. F. Patterson, New Berne, N. C.
Dr. J. C. Walton, Richmond, Va.
Dr. Murat Willis, Richmond, Va.
Dr. S. D. Booth, Oxford, N. C.
Dr. S. H. Cannady, Oxford, N. C.
Dr. J. R. Harris, Hendersonville, N. C.
Dr. E. F. Fenner, Henderson, N. C.
Dr. John E. Baxter, Henderson, N. C.
Dr. S. G. Watkins, Oxford, N. C.
Dr. Joel G. Kinff, Warrenton, N. C.
Dr. S. P. Holding, Wake Forest, N. C.
Drs. Timberlake & Reddick, Youngsville, N. C.

Regulate the Practice of Medicine.

The present indications are that the New Orleans Medical Society will become involved in a discussion regarding legislation

with the osteopaths and possibly the Christian Scientists. The organization is backing strongly the bill introduced by Senator Labbe of St. Martin for the regulation of the practice of medicine. The bill provides for the rigid tests of eligibility for practice and would, it is said, bar the osteopaths, who are said to be fighting it. Christian Science in regard to its religious rites, would, it is said, be exempted.

Dr. J. J. Mann.

Dr. J. J. Mann, of Louisburg, N. C., died on the 29th of May, of heart failure after a short illness. The funeral services were held the following afternoon at five o'clock, Rev. Geo. M. Duke conducting the services. Dr. Mann was a student of the Baltimore Medical College and received his license in 1886. He was about 40 years of age.

The Medical Era's Gastro-Intestinal Edition.

The Medical Era, of St. Louis, Mo., will issue its annual series of Gastro-Intestinal editions during July and August. In these two issues will be published between 40 and 50 original papers of the largest practical worth, covering every phase of diseases of the gastro-intestinal canal. Sample copies will be supplied readers of thif journal.

Women Nurses for the Navy.

The medical officers attached to the bureau of medicine and surgery at the navy department, are busily engaged in forming the rules and regulations governing the appointments to and administration of the new corps of women nurses which now becomes a part of the navy appropriation act signed on the 13th of May. The first step in this direction will be the appointment of a superintendent, who will be selected from among qualified women nurses, several of whom have already filed applications with the surgeon-general. These women will be for the most part stationed at naval hospitals within continental limits. Some of them will also be sent to the new naval hospital at Canacao, in the Philipines. That is the most important of the United States naval hospitals on the Asiatic station. Another hospital has been maintained for years at Yokohama, Japan, and later on, when all the other hospitals are provided with women nurses, it is probable the institution at Yokohama will have women nurses also. Much interest is taken in this employment of women nurses by the navy. The general system which has been adopted by the army medical department in this particular will be followed by the navy.

The Medical Association of the Southwest.

This association, which embraces the States of Kansas, Arkansas, Oklahoma, Texas and Missouri, will hold its next annual meeting in Kansas City, Mo., on October 20th and 21st. The secretary, Dr. F. H. Clark, El Reno, Okla., is actively engaged in the preparation of an extensive programme, and the committee on arrangements is already making plans for the entertainment of those who attend. Dr. John Punton, 532 Altman Building, Kansas City, Mo., is chairman of the committee on arrangements, and will be glad to answer all communications relative to the meeting.

Pathology of Diabetes.

Whenever sugar is absorbed into the blood from whatever source, all the body cells fix as much of it as they require in the form of glycogen, the liver perhaps having power to store whatever is in excess of immediate requirements.

In order to make use of this glycogen it must be reconverted into sugar, and this, in the case of the liver, is done by means of a ferment. Now, this ferment may be the normal sugar-forming ferment of the pancreas, which, after performing its function in the intestine, is absorbed and made use of again in the tissues, perhaps undergoing some change till such times as it is wanted.

When this ferment is not present, the glycogen in the cells cannot be made use of. But sugar may be an essential requirement of these cells, and, with the power of using the fixed glycogen gone, the small normal quantity floating in the blood may be of little use to supply this requirement.

Hence a demand on all sides for sugar, resulting in increased appetite, and the conversion of proteid and anything that can be so transformed into sugar, so that the sugar percentage of the blood is raised above normal. But as soon as this occurs two things happen:

(1) There is a demand for water, producing thirst, on account of the increased density of the blood, and

(2) The kidneys begin to filter off sugar; so that, with abundance of glycogen and sugar, the tissues are starving for it, the cells striving to establish a higher sugar percentage in the blood, the kidneys always frustrating them.

This theory would explain the food effect of pancreatic extracts in diabetes; the value of morphine may be simply that it diminshes metabolism.—Brit. Med. Jour.

IN THE RESTORATIVE STAGE

following such acute diseases as typhoid fever, pneumonia, diphtheria, whooping cough and the exanthemata, there is no remedy so generally useful as

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THE GERMAN APPETITE.

It Eemands Stodgy, Satisfying Food---No Dainty Morsels Will Suffice.

"Your German does not care for fancy food," says Samuel G. Blythe, in "Berlin and its Burghers," in the June Everybody's. "He wants 'grub.' Eating to him is a sacred ceremony, not to be trifled with nor slighted. When he eats, he wants to eat, to masticate, to get a realizing sense that he is communing with something that has substance in it. There was that occasion when Frederick W. Cauldwell, the American Vice-Gonsul General in Berlin, decided to give a reception to his friends. He went to his landlady and discussed the refreshments with her. They decided on sandwiches and some trifles of that character. In giving his parting instructions Cauldwell said: 'Be sure to cut the crusts off the bread when you make the sandwiches.'

"There was consternation at this. The landlady held a consultation with the servants. The master of the house was brought into it. The point was debated for half an hour. Cut the crusts off the bread? Preposterous! After the situation had been canvassed in all its details, and the judgment of everybody in the house had been passed on the proposition, the landlady went to Cauldwell.

" 'Is it so,' she asked, 'that we are to cut the crusts the bread off when the sandwiches we are making?'

" 'Certainly,' Cauldwell replied.

" 'Ah,' she said, a great light breaking over her, 'I comprehend at last. Your friends have no teeth.' "

Notes on Immunity to Disease.—Harvey and McKendrick (Scot. Medical and Surg. Jour.) review our vaccinotherapy. The applications are numerous. Some have been more successful than others. A tubercle vaccine—Koch's tuberculin—has been used for the cure of lupus, tuberculous glands, tuberculous sinuses, and genito-urinary tuberculosis. It has also been used in early cases of phthisis. A staphylococcus vaccine has been used for boils, acne vulgaris, sycosis, malignant endocarditis, certain cases of pyæmia, and other such affections due to this organism. A bacillus coli vaccine is useful in some cases of appendicitis, cystitis, and cholecystitis. It is quite possible that an efficient gonorrhœal vaccine may be found which will be useful in chronic cases. We may hope for a dysentery vaccine. Malta fever vaccine, and pneumococcus vaccine.

Remarks on Empyema.—Morison (Edinburgh Medical Journal) concludes from his observation of one hundred consecutive cases of empyema that pleuropneumonia is the most frequent cause of empyema, while it rarely follows pleurisy with effusion. In adults empyema is more likely than in children to be secondary to serious lung disease. The diagnosis of empyema is not always easy, for it may be ushered in by symptoms pointing more to the abdominal than the thoracic cavity, and the physical signs resemble closely those of consolidation. The exploring needle should be used in all doubtful cases, and, and if needful, in more than one place, as there is no danger in using the needle with proper care. The immediate prognosis of an uncomplicated empyema treated by incision and drainage is good. It is worst when allowed to burst through the chest wall. The remote prognosis is excellent. No deformity follows recovery, and no sequelæ are to be anticipated. The best prognosis can only be given in cases where an aseptic condition of the pleural cavity can be assured by antiseptic operation and antiseptic after treatment. The anæsthetic should be carefully administered, and the patient not turned over during its administration; in adults it is safer to do do the operation without general anæsthesia. Aspiration is disappointing as a curative agent, but is useful in some cases temporarily, while incision and drainage with antiseptic precautions may be trusted to cure all cases of curable empyema, but irrigation is unnecessary and dangerous. Rib resection is needful in some neglected cases, but in the generality of cases it is meddlesome surgery.

Resection of the Pancreas.—Ehrhardt (Deutsche medizinische Wochenschrift) says that gastric and intestinal surgery has now reached such a point of development that pancreatic operations are possible with good chances of success. So far about forty or fifty cases are on record in which larger or smaller portions of the gland were removed for primary or secondary new growths. The inaccessible position of the organ and its close relationship to numerous large vessels, such as the portal vein, vena cava, superior mesenteric vessels, and the pancreatico-duodenal vessels render removal of portions of a distorted and diseased gland exceedingly difficult. While the danger of diabetes or of disorders in fat digestion is not very great after these operations, a real peril is formed by the changes taking place in the cut surface through the action of the secretions of the gland itself. The author describes two cases in which he successfully removed considerable portions of the pancreas for malignant involvement secondary to pyloric carcinoma, the patient surviving the operation five months in the one case and over one and a half years in the other.

INDEX TO VOLUME 32.

Original Communications.

A Drugless Clinic, by E. H. Martin, M. D., Hot Springs, Arkansas,..... 191
Abscesses of the Liver, by W. A. Bryan, A. M., M. D., Nashville, Tenn.,.... 67
Achylia Gastrica, by H. B. Kincaid, M.D., Memphis, Tenn.,.... 59
Adenoids: What? Where? When? and How? by Albert J. Caldwell, Amarillo, Texas,..... 66
Appendicitis: Methods of Treatment: Report of Two Hundred and Six Cases with Four Deaths, by Murat Willis, M. D., Richmond, Virginia,.... 343
Are Our Rights Threatened? by Dr. H. C. Buck, Friars Point, Mississippi, 121
Bright's Disease: Its Pathology and Treatment, by Benjamin K. Hays, M. D., Oxford, N. C.,.... 328
Cases of Head Injury with Operation, by H. Stuart MacLean, M. D., Richmond, Va.,..... 73
Clinical Gonorrhoea, by Thomas W. Murrell, M. D., Richmond, Va.,..... 77
Contribution to Local Anesthesia, by L. S. Oppenheimer, M.D., Tampa, Fla 76
Confusion and Errors in the Diagnosis of Rheumatism, by Lewis M. Gaines, M.D., Atlanta, Ga., ... 142
Creosote, Cod-Liver Oil, Russell's Emulsion, and Ichthyolated Emulsion Compound in Tuberculosis, by John Roy Williams, M. D., Greensboro, N. C.,..... 336
Delirium Tremens, by Dr. Robt. S. Carroll, Asheville, N. C.,..... 145
Diagnosis, Its Importance—with Special Reference to Surgical Diseases, by J. H. Johns, M. D., Atlanta, 342
Ectopic Gestation, by John W. Dillard, M.D., Lynchburg, Virginia,..... 135
Epilepsy and its Treatment, by William Francis Drewry, M. D., Petersburg, Va.,..... 261
Etiology, Pathology, and Treatment of Diseased Tonsils and Adenoids, by B. D. Sibley, M. D., Birmingham, Alabama,..... 332
Excesses of Modern Times and their Relation to Disease, by Marion McH. Hull, M.D., Atlanta, Ga., 63
Gangrenous Kidney. Transparitoneal Nephrectomy; Recovery, by Dr. Joseph Graham, M, D., and E. A. Abernathy, M. D. Durham, N. C, ... 5
Hemmorhagic Malarial Fever; Report of Cases, by F. A. Webb, M. D., Calvert, Alabama..... 8
Heart Block, by L. B. Newell, M.D., Charlotte, N. C. 183
Intestinal Obstruction Resulting from Circulation Construction by an Elongated Appendix, by Edward N. Liell, M. D., Jacksonville, Florida,..... 345
Influenza Pneumonia, by Dr. J. R. Nelson, Eurekaton, Tennessee..... 339
Malignant Growths, by Dr. W. A. Matthews, Hawkinsville, Georgia,..... 323
Malformations of the Mouth and Cleft Palate, by M. F. Coomes, M. D., Louisville, Kentucky,..... 123
Massive Quinine Dosage in the Treatment of Pneumonia, by R. L. Payne, Jr., M. D, Norfolk, Virginia, 129
Malignant Diseases of the Stomach, Diagnosis in the Early Stages, by Dr. M. J. Payne, Staunton, Virginia..... 2
Medical Morals and Manners, by Hubert Ashley Royster, A. B., M. D., Raleigh, N. C,..... 255
Nephritis, by H. E. Mitchell, M. D., Birmingham, Ala., ... 62
Notes of Trip to Richmond, by Dr. J. W. Long, Greensboro, N. C.,..... 267
Open Method Treatment of Epitheleoma on a Muco-Cutaneous Surface, by W. D. Witherbee, M. D., Charlotte, N. C.,..... 122
Presidential Address, by Dr. Stuart McGuire, Richmond, Virginia, ... 136
Report of a Case of Carcinoma of the Head of the Pancreas, by Dr. R. D. V. Jones and Dr. J. F. Patterson, Newberne, N. C.,... 341
Recent Experiments in the Treatment of Fractured Patallae, by Dr. Theodore Maddox, Union, S. C.,... 323
Retention of Urine and its Relief, by Dr. Owen-Smith, Asheville, N. C., 185
Retained Placenta—Report of a Case, with Remarks, by J. N. Upshur, M. D., Richmond, Virginia,..... 138
Recent Progress in the Study of Typhoid Fever, by Lewellys F. Barker, M. D., Baltimore, Md.,.. 246
Something of the Present Status of Cancer of the Uterus, by Dr. J. H. Marsh, Fayetteville, N.C. 200
Sarcoma of Colon, by Dr. C. M. Strong, Charlotte, N. C.,..... 133
Some Observations on Digitalis and its Uses, by St. Geo. T. Grinnan, M. D.,
Spasmodic Croup in Children, by W. T. Grove, M. D., Eureka, Kansas,..... 70
Some Suggestions on Three Essential Points in the Treatment of Typhoid Fever, by Herman Hawkins, M. D., Jackson, Tenn.,..... 81
State Maintenance for Epileptics, by T. P. Satterwhite, M.D., Louisville, Ky. 1
Strangulated Hernia in Infants, by John Egerton Cannaday, M. D., Hansford, W. Va, Surgeon-in-charge, Sheltering Arms Hospital..... 6
Some Clinical and Practical Points about the Prostatatiker and Prostatectomy, by Robt. C. Bryan, M.D., Richmond, Va..... 9
Surgery and the General Practitioner, by J. W. Ellis, M.D., Lampas, Tex. 14
The Relation of the Physician to the Public, by V. Berry M. D., Wetumka, Oklamaho..... 16
Tetanus, by Charles T. Harper, M. D., Wilmington, N. C.,..... 259
The Care and Treatment of the Average Drug Habitue, by W. C. Ashworth, M. D., Asheville, N. C.,. 337
The Menopause, by Albert D. Parrott, M. D., Kinston, N. C..... 80
The Iodine Treatment of Puerperal Sepsis, by Chas. R. Robins, M. D., Richmond, Va..... 195
The Little Things in Obstetrics, by Dr. J. T. Graham, Wytheville, Va.,... 252
The New Currents in the Treatment of Nervous Diseases, by Chas. M. Hazen, M. D., Richmond, Va.,..... 254
The Position of the X-Ray Specialist in the Field of Medicine and Surgery, by Dr. A. L. Gray, Richmond, Virginia,..... 128
The Treatment of Epilepsy, by J. Allison Hodges, M. D., Richmond, Virginia, 139
Tic Douloureux: A Plea for the Proper Medical Treatment before Surgical Intervention, by Beverly R. Tucker, M. D., Richmond. Va..... 201
Treatment of Prostatic Hypertrophy, with Report of Cases Operated on by the Perineal Method, by J. Shelton Horsley, M.D., Richmond, Va.,..... 197
Truneck's Serum in a Case of Arterio-Sclerosis, by

C. T. St. Clair, M. D., Tazewell, Va..... 83
Tubal Pregnancy, by W. P. Whittington, M.D., Asheville, N. C..... 126
Richmond, Virginia,... 326
Treatment of the Stump in Appendectomy, by F. T. Meriwether, M. D., Asheville, N. C..... 334
Unusual Case of Ovarian Cyst, by H. Stuart MacLean, M. D., Richmond, Virginia..... 338

Editorial.

An Osteopath Shot..... 156
Amebic Dysentery..... 155
Annual Meeting of Association of Surgeons of Southern Railway,..... 271
Another Operation for Congenital Dislocation of the Hip-Joint,..... 274
Alabama Medical Association..... 277
A New Director for the State Laboratory of Hygiene, Raleigh,..... 21
A New Medical Firm for Charlotte..... 86
Atlas and Text-book of Human Anatomy, by Sabotta and McMurrich..... 31
Anarchism and Socialism, by Geo. Plechanoff Anderson, ... 32
Anti-Tuberculosis League, 350
Announcement,..... 205
Another Victim of the Octopus,..... 205
A New Hospital,..... 208
Arsenic in Dried Hops,.... 207
Alabama Medical Association..... 210
Atlanta Sanatorium Increases Staff,..... 211
A Modern Clinical Laboratory in Charlotte,.. 354
Artificial Feeding of Infants 355
Charlotte Sanatorium Training School for Nurses,..... 154
Crusade Against Flies,.... 351
Cullen Andrews Battle,.... 209
Conso.idation of California Journals,..... 210
Cuba Quarantined..... 209
Dr. Hodges, the Orator,.... 209
Dr. Robert H. Holliday,... 208
Drug Manufacturer Convicted,..... 210
Dr. J. M. Sadler, ... 208
Dr. J. D. McMillan,..... 208
Dr. T. D. Haigh,..... 211
Dr. L. L. Ardrey 158
Dr. Lawrence Edward Holmes..... 88
Dr. J. F. Beall,..... 24
Dr. S. M. Deal, Blacksburg, S. C..... 24
Dr. Geo. F. Shrady,..... 24
Dr. H. P. Loomis,..... 25
Dr. Nicholas Senn, ... 25
Dr. Walton's New Hospital 272
Deaths..... 286
Delegates to A. M. A. from North Carolina,..... 280
Diseases of the Nose and Throat, by D. Braden Kyle, M. D.. 80
Do Not Neglect the Fundamentals,..... 275
Deaths..... 363
Dr. Hodges, the Orator,... 350
Escaped Lunatics Recaptured,..... 208
Edw. J. Kinloch, M. D..... 209
Editorial News Items,..... 358
Editorial News Items,..... 280
Food Inspector for South Carolina,..... 207
Empire Builders, by Francis Lynde..... 32
Five Children at a Birth,.. 157
Greensboro Cottage Sanitarium,..... 21
Georgia Medical Association,..... 276
How Will It Work?..... 157
Health Officer for South Carolina..... 86
International Clinics, by W. T. Longscope, M. D.. 33
Influenza..... 86
Journal of the Elisha Mitchell Scientific Society 30
Journals Wanted,..... 276
Lumberton Doctors Organize..... 211
Louisiana Medical Society, 353
Modern Medicine, by William Osler, M D..... 30
Maternity, by Henry D. Fry, M. D..... 32
Marxian Economics, by Ernest Untermann,..... 32
Merck's 1907 Index, by Merck' Co., ... 32
Marriages,..... 286
Medical College of Virginia 349
Marriages,..... 362
Nota Bene,..... 205
Nalle-Mayer 24
North Carolina Medical College Closes,..... 279
New Sanitarium,..... 209
Plague in India..... 355
Physician's Home Burned, 211
Plague in San Francisco,.. 22
Program of the Fifty-Fifth Annual Meeting of the Medical Society of the State of North Carolina to be held in Winston, June 16-17-18, 1908,..... 364
Report of the North Carolina Board of Health,.... 156
Supreme Court Decides Against Doctor, ... 211
St. Francis Hospital,..... 208
Southern Railway Surgeons,..... 211
Small-Pox,..... 158
Society Meetings..... 23
Sexual Instinct, by James Foster Scott, A.B., M.D., C. M..... 31
Squibb's Materia Medica by E. R. Squibb & Son, 33
Special from North Carolina to Chicago Meeting of A. M. A.,..... 271
South Carolina Medical Association,..... 276
Southern Medical College Association..... 87
Stanford E. Chaille,..... 356
Stokes Adams-Heart Block 356
Transactions of the State Medical Society,..... 208
The Physicians and Surgeons of the Confederate Army and Navy..... 211
The Whiskey Prescription Business,..... 210
The Fight Against Tuberculosis..... 158
The Tri-State Medical Society Meeting,. 151
The Tri-State Medical Association of the Carolinas and Virginia..... 85
The Campaign Against Tuberculosis 85
The Bacteriology of the Blood in Typhoid Fever. 87
The State Hospital for Consumptives 21
Thompson Hospital... ... 21
Elections, ... 21
The Medical Brief Changes Hands..... 22
The Case of Dr. Knopf,.... 205
The Scourge of Tuberculosis 207
The Treatment of Fractures, Chas. L. Scudder, M. D., ... 31
The Principles and Practices of Modern Otology, by John F. Barnhill, M.D. 31
The Race for the Emperor's Cup, by Py Paul Eve Stevenson, ... 32
The Mind of the Master, or The Nervous System of Jesus, by Salvarona,... 32
The Physician's Visiting List for 1908, by Blakiston Son's Co.,..... 32
The Republic, by N. P. H. Kerr & Co. 32
The Fifty-Fifth Annual Meeting of the Medical Society of the State of North Carolina, ... 269
The Florida State Medical Association,..... 272
The Southside Virginia Medical Association,..... 357
The Meeting of the North Carolina Medical Society, 347
The Annual Con-Joint Session of the State Medical Society and the North Carolina State Board of Health,..... 347
The Increase of the Army Medical Department,.... 348
The Diagnostic Value of Negri Bodies in Hydrophobia,..... 351
Tennessee Medical Association,..... 276
Tenth District Medical Society,..... 211
Transactions of the Indiana State Medical Association, by Dr. A. W. Brayton, ... 33
Tri-State Medical Association 22
Things Ought Not so to Be, 279
Transmissibility of Bovine Tuberculosis,..... 273
University College of Medicine Closes..... 348
United States Mortality Statistics, ... 352

Vivisection Again, ... 354
Vivisection,..... 153
Watts Hospital, Durham, N. C..... 156
Water and Disease 349
Wellcome's Excerpta Therapeuta, by Burroughs Wellcome & Co..... 33
When Things Were Doing, by C. A. Stevere..... 30
Yellow Fever,..... 157

Review of Southern Medical Literature, 25 88 158 212 307 358

Book Notices.

Applied Physiology, by Fredick A. Rhodes, M.D. 93
A Great Opportunity for Sufferers from Nervous Troubles,..... 164
An Aid to Materia Medica, by Robt. H. M. Dawborn, M. D.,..... 313
A Text-Book on Uric Acid and Its Congerers, by Geo. Abner Gilbert. M. D.,... 220
A Cure for "That Tired Feeling."..... 221
Bier's Hyperemic Treatment in Surgery, Medicine and all the Specialties, by Willy Meyer, M. D.,..... 219
Currents of High Potential and other Frequencies, by William Benham Snow, M. D.,..... 220
Cosmetic Surgery, by Chas. C. Miller, M. D..... 93
Diseases of the Nervous System, edited by Archibald Church. M. D..... 220
Diseases of the Nose, Throat and Ear. Medical and Surgical, by William Lincoln Ballenger, M. D.,... 313
Diseases of the Heart, by Prof. Th. von Jurgensen, of Tubingen,..... 163
Diseases of the Stomach, by Dr. I. Boas, Berlin, Germany,..... 219
Eleventh Biennial Report of the North Carolina Board of Health, 1905-6, 164
Funeral Directors' Association,..... 93
International Clinics, edited by W. T. Longcope, M.D. 314
Mechanical Vibration and Its Therapeutic Application, by M. L. H. Arnold Snow, M. D..... 220
Manifesto de la Komnuista Partie. The Communist Manifesto, by Karl Marx and Frederick Engels.... 93
Nursing the Insane, by Clara Barrus. M. D., ... 313
Nervous and Mental Diseases for Students and Practitioners, by Charles S. Potts, M. D.,..... 314
Practical Fever Nursing, by Edward C. Register, M.D., Charlotte, N. C.... 164
Practical Fever Nursing, by Edward C. Register, M. D., Charlotte, N. C.,.. 312
Practical Life Insurance Examinations, by Murray Elliott Ramsey, M. D.,... 313
Righthandedness and Lefthandedness, by George M. Gould, M. D.,..... 385
Proceedings of the American Medical Editor's Association, by the Secretary,..... 93
Surgery: Its Principles and Practice, edited by W. W. Keen, M. D.,..... 163
Surgical Therapeutics, by Emory Lanphear, M. D., 217
Saunders' Forthcoming Books,..... 385
Tuberculosis Congress..... 93
The Every-Day Diseases of Children and Their Rational Treatment, by Geo. A. Candler, M. D..... 93
The Pyonex: Its Theory and Practice, by W. B. Rule, M.R.C.S., L.R.C.P. London,..... 164
The Confederate Cause and Conduct in the War Between the States, by Hunter McGuire, M. D.,..... 218
The Principles and Practice of Medicine, by William Osler, M. D ,..... 218
The Production and Handling of Clean Milk, by Kenelm Winslow, M. D., 219
The Negro: A Menace to American Civilization, by R. W. Shuffeldt, M. D ,.. 221
The Presidential Bee,..... 221
The Retiring Admiral of Our Great Fleet,..... 221
Transactions of the Thirteenth Annual Meeting of the American Laryngological and Otological Society,..... 218
Thirteenth Annual Report of the Department of Public Health. Augusta, Ga., 218
The Conquest of Cancer: a Plan of Campaign, by C. W. Saleeby, M. D.,..... 384
The Government's Food Expert,..... 386
The Insanity of De Maupassant,..... 386
The College of the Future, 387
Transactions of the American Pediatric Society,... 385
Personal Hygiene in Tropical and Semi-Tropical Countries, by Isaac Williams Brewer, M. D.,.... 218
Practical Fever Nursing, by Edward C. Register, M. D., Charlotte, N. C, 217
Practical Fever Nursing, by Edward C. Register, M. D.,..... 384
Why Worry? by George Lincoln Walton, M. D.,.. 384

Abstracts.

Acute Tuberculous Fever, 222
Acute Poliomyelitis..... 223
Avian and Human Tuberculosis..... 227
Appendicitis,..... 228
Abortion,..... 228
Arrest of Hemorrhage after Labor..... 233
A Plea for Higher Standard in Therapeutics,..... 168
A Case of Swine Erysipalis in Man Cured by the Use of Serum..... 94
Acute Pulmonary Edema 95
A Salt Free Dietary in the Treatment of Scarlet and Acute Nephritis. 99
Acute Poisoning After Oil Enemas..... 103
Abortion..... 105
A Possible Explanation of Late Return Caesar of Scarlet Fever..... 107
Alcohol in Relation to Medicine..... 116
Action of the Gastric Juice Upon Starch..... 118
Appendicostomy in Chronic Dysentary 119
Appendicectomy by Transverse Incision,..... 373
Anastomosis Between the Common Bile Duct and and the Duodenum for Obstructive Jaundice,... 20
A Case of Land Scurvy, 35
An Operation for Embolus, 35
A Case of Cerebellar Hemorrhage, ... 36
Attempted Induction of Abortion by Intra-uterine Injection of Fehling's Solution,..... 36
Acetonaemia in Children.. 40
Acute Miliary Tuberculosis Following Intubation of Larynx..... 41
A Case of Xeroderma Pigmentosum Without Pigmentation. 45
Acute Torsion of Both Fallopian Tubes,..... 38
Action of Morphine Upon the Genital Apparatus of the Woman, ... 46
Acute Tuberculous Fever, 291
Ankylostomia Anemia in Children,..... 288
Acute Poliomyelitis..... 292
Avian and Human Tuberculosis,..... 292
Arterial Hypertension and Eclamptic Seizures,..... 303
A Cavity of the Lung Successfully Treated with Ozone,..... 383
Bacterial Conditions of the Faeces of the Infant 119
Breast Treatment—After Treatment..... 103
Birth Traumatism and Epilepsy,..... 172
Blackwater Fever 223
Bacillurıa in Childhood,... 236
Blood Pressure in Fevers, 85
Continuous Generalized Spasms and Acute Encephalitis of Infants..... 289
Cancer of the Cervix and Pregnancy, ... 294
Chloroform Shock—Lessening by Transfusion,..... 297
Chronic Articular Rheumatism and Arthritis Deformans,..... 298

Chronic Middle Ear Suppuration,..... 296
Cancer of the Cervix and Pregnancy..... 233
Conjunctivitis,..... 226
Clinical Observations on the Origin of Fever..... 102
Cause of Fetal Endocarditis after Eight Years? 383
Compresses Left in the Abdomen---Prevention..... 103
Cancer Recurrence..... 118
Contributions to Dysbasia Angiosclerotica (Intermittent Claudication),.... 376
Diabetes Mellitus,..... 222
Deviations of the Spine in Young Girls,..... 240
Double Harelip--New Operation,..... 237
Placenta Previa, with Observations on Two Hundred and Fifty Cases..... 374
Diabetic Neuritis..... 167
Dangers and Treatment of Placenta Praevia..... 97
Diabetes Mellitus,..... 291
Diphtheria, Irregelarity of the Pulse in..... 29
Deaths Under Anaesthetics 302
Differential Diagnosis Between Renal Disease and Perityphitis..... 43
Delusions of Grandeur in General Paralysis of childreno..... 107
Dysentery..... 98
Decapsulation or Splitting of the Kidney in Eclampsia, 378
Do Ovarian Dermoids Become Cancerous?..... 379
Diagnosis of Epidemic Cerebrospinal Meningitis in Infants,..... 45
Epidemic Pemphigus of the New-born,..... 289
Empyema in Children,..... 300
Etiology and Pathogenesis of Rickets,..... 381
Extract Mistletoe for Haemorrhage..... 101
Functional Tests of the Gastric Function..... 104
Frequency of Tuberculosis in Infancy..... 19
Four Cases of Adipositas Dolorosa (Dercum's Disease),..... 379
Genitourinary Tuberculosis..... 96
Gastric Conditions in Wasted Infants..... 97
Glimpses of Medical Europe by Ralph L. Thompson, M. D..... 313
Glycosuria and Abdominal Tumors..... 373
Goitre and Cardiac Diseases 99
Grafting the Whole Thickness of the Skin,..... 377
History of an Epidemic of Puerperal Fever from Streptococci,..... 381
Hemophilia Transmitted through the Male..... 101
Haemolysis Through Serpent Venom..... 100
Hallucination,..... 169
Heart Disease in Relation to Pregnancy and Labor, 224
Hemorrhage from Varicose Veins of the Vagina in Pregnancy,..... 235
Intraparietal Hernia with Very Small Peritonal Opening, Giving Rise to Severe Abdominal Pain.... 39
Indications for Rupture of the Membranes 37
Injections of Air for the Relief of Pain,..... 288
Intestinal Polyposis and the Relation of this Condition to Carcinomatous Degeneration,..... 298
Intraperitoneal Injection of Oxygen for Tuberculous Ascites..... 39
Inguinal Hernia in Children 33
Inherited Syphilis,..... 240
Injections of Air for Pain, 224
Instrumental Perforation of the Uterus During Abortion,..... 234
Intraperitoneal Rupture of the Bladder,..... 380
Improvement in Teaching and Studying Legal Medicine..... 375
Juvenile Physiological Albuminuria..... 107
Krause Skin Flaps in Leg Ulcers,..... 297
Laryngostomy,..... 303
Length of Time in Bed After Physiological Labor, 295
Locomotor Ataxia,..... 165
Membranous Rhinitis..... 292
Membranous Rhinitis,..... 223
Morbid Pregnancies,..... 236
Manual Labor in Phthisis, 239
Mucocele of the Accessory Nasal Sinsuses 97
Myasthenia Gravis and Parathyroids,..... 374
Methylene Blue for Cracked Nipples..... 102
Mobile Kidney with a Description of an Operation for Anterior Nephropexy..... 43
Medical Egotism..... 34
New Treatment for Rabies, 49
Nursing During Acute Illnesses of the Mother,..... 306
Ovarian Hernia,..... 377
Ovarian Cyst and Pregnancy 382
Ophthalmoblenorrhea of the New-Born Contracted in the Uterus..... 234
On Non-Flagellate Typhoid Bacilli,..... 229
Oxaluria,..... 230
Observations on Pirquet's Tuberculin Reaction,..... 150
On Black Fever,..... 167
Ovarian Teratomata,..... 304
On the use of Massage and Movement in the Treatment of Fractures..... 40
Pathological Changes Produced by Alcohol,..... 300
Pyocyanase as a Prophylactic and Remedial Measure in Certain Infectious Diseases,..... 290
Pericarditis,..... 295
Pathology of Phlegmasia Alba Dolens 43
Pain and Blood Pressure.. 19
Pericarditis,..... 229
Puerperal Fever,..... 379
Plural Effusion..... 116
Plrcenta Previa --Treatment in Private Practice 103
Potassium Permanganate Solution for Fissure of the Anus 101
Ptomaine Poisoning from Mutton with Marked Bradycardia..... 107
Right-Angled Contraction of the Tendon Achilles as a cause of Stumbling, Etc , in Children..... 38
Rectal Feeding,..... 295
Relations of Typhoid and Paratyphoid to the Bile Ducts..... 289
Rectal Feeding..... 229
Rheumatoid Arthritis..... 231
Rupture of the Umbilical Cord During Labor,..... 234
Resection of the Pancreas. 380
Remarks on Appendix Abscess..... 95
Some Experiences of the Ophthalmo-Reaction of Calmette,..... 375
Spinal Analgesia,..... 235
Suboccipital Inflammation, 235
Serum Treatment of Puerperal Sepsis,..... 305
Signs of Visceral Disease, 301
Syphilis Reation..... 104
Suppuration in the Region of the Pharuyx..... 95
Some Considerations in the Use of Cardiac Tonic.. 105
Spirachaeta Pallida,..... 381
Syphilitic Gumma of the Mammary Gland,..... 382
Sudden Death in Heart Disease,..... 382
Suppurative Tenosynovitis, 377
The Chorea of Pregnancy, 379
The Detection of Blood in the Feces,..... 380
The Hydrochloric Acid Treatment of Gout..... 108
Thyroid Disturbances Caused by Iodine Intoxication 108
The Minimum Albumin Requisite 110
The Differentiation of Transudates from Exedates... 102
dates 102
The So-Called Rheumatic Iritis,..... 383
The Heart Rhythm,..... 165
The Surgical Treatment of Cerebrospinal Meningitis 166
The Mechanism of the Reflexes,..... 166
The Treatment of Tetany with Parathyroid Preparations,..... 172
The Pathogenesis of Hirschsprung's Disease,..... 172
The Resection of Large Nerve Trunks Without Paralysis 33
Theory and Practice of Serum Diagnosis in Syphilis 302
The Lower Segment of the Uterus,..... 304
Twelve Cases of Mastitis Treated by Suction Apparatus,..... 288

The Intracellular Occurrence of Tubercle Bacilli in the Sputum..... 40
The Aetiological Diagnosis of Typhoid Fever..... 41
Nasopharynx as Infection Carrier in Cerebrospinal Meningitis 41
The Practical Application of the Demonstration of the Sphirochaeta Pallida, 42
The Operative Treatment of Inguinal Hernia in Children..... 41
The Microbe of Whooping Cough,..... 43
Tuberculous Diseases of the Aesophagus and Stomach 44
The Treatment of Typhoid Bacilli Carriers,..... 45
The Treatment of Malignant Growths With Organic Extracts,..... 45
The Thymus and Death in the Course of General Anaethesia,..... 46
The Suprarenal Glands.... 46
The Origin of Seasickness, 48
The Effect of Nicotine Upon the Cardio-Vascular System, ... 48
The Symptoms and Aetiology of Mania,..... 299
The Treatment of Serous Effusions,..... 299
The Emptying of the Stomach, the Separation of Solids and Fluids, the Behavior of Fat,..... ... 289
The Necessity of Removing the Appendix During Every Gynecologic Laparotomy,... 289
The Syndrome Produced by a Lesion of the Optic Thalamus,..... 290
The Treatment of Acute Gonorrhœa, ... 291
The Cause, Pathology, and Treatment of Chronic Rheumatism,..... 293
The Treatment of Membranous Colitis, ... 293
Treatment of Pruritus,..... 295
The Cutaneous Tuberculin Test,..... 296
The Sanatorium Treatment of Active Insanity by Rest in Bed in the Open Air, 296
The Role of the Various Elements in the Development and Regeneration of Bone,..... 306
The Diagnosis of Chronic Valvular Disease of the Heart..... 33
The Reaction of Bordet and Gengou in Respect to the Streptococcus in Scarlet Fever..... 97
The Prognosis in Operation for Vulvar Carcinoma.. 98
The Time of Leaving Bed After Normal Labor..... 99
The Genesis of Albuminura 100
The Action of Paucrea in Carcinoma..... 100
The Results Obtained in Tuberculosis Sanatoria. 101
The Technique and Significance of Wasserman's
The Treatment of Acute Gonorrhoea,..... 223
The Treatment of Cardiac Dilatation, ... 238
The Application of Pure Ichthyol in Gonorrhoeal Epididymitis,..... 239
Treatment of Fibroids Complicated by Pregnancy,.. 235
The Local and Internal Treatment of Gonorrhea, 227
The Treatment of Serous Effusions,... 231
The Treatment of Mucomembranous Colitis,..... 232
The Cure of Epithelioma by the Roentgen Ray,.... 375
The Radical Operation for Cure of Chronic Disease in Highmore's Antrum Under Local Anesthesia, 377
The Influenza Bacillus as a Tuberculosis of the Cervix Uteri,..... 374
Tobacco Smoke,..... 382
Treatment of Metritis by the Use of Cups Over the Cervix after Bier's Method 380
Treatment of Cancer of the Larnyx..... 119
Typhoid Insufficiency and Noctural Enuresis in Children and Adults.... 105
Tubal Abortion..... 93
Renal Decapsulation in Eclampsia..... 94
the Uterus,..... ... 305
Tubercle Bacilli Entering by Way of the Intact Skin 95
Use of a Ventral Bandage During Labor,..... 305
Vaccines and Bacterial Infections,..... 224
Vaginal Cyst..... 197
When and How Should an Injection of Antitauic Serum be Given?..... 100
Wine and Typhoid Fever.. 19

Typhoid Infection of Ovarian Cysts. - Taylor (Brit. Jour. Obst. and Gynec.) finds the sources of infection to be by way of the Fallopian tube; the intestine, including the vermiform appendix; in tapping; by infection of the blood-stream in systemic contagious diseases. The bacillus coli communis and the pyogenic cocci are the most frequent germs to infect and cause suppuration in ovarian cysts. Infection with the typhoid bacillus is comparatively rare, since it connotes the occurrence of this disease in a patient already suffering from an ovarian cyst. The writer relates a very instructive and interesting case. A woman aged 37 was admitted to hospital eight months after an attack of typhoid, during her convalescence from which a small and very mobile abdominal tumor was discovered. It had gradually increased in size until admission; there were no symptoms of suppuration. A diagnosis of ovarian cystoma was made. Laparotomy disclosed a large plum-colored cystic swelling, which was veiled by adherent omentum. The appearance of this lesion suggested pedicle-torsion, which, however, did not exist; the tumor, which was of the left ovary, was removed entire. Being incised two and a half pints of a uniform, greenish-yellow purulent, odorless fluid escaped, and from it a bacillus was subsequently obtained in pure culture, which proved to be the typhoid bacterium. Its morphological, tinctorial, cultural and agglutinating properties were comprehensively studied. Moreover, the agglutinating power of the patient's serum with the typhoid bacilli proved that her previous illness was really enteric fever. There are, from a bacteriological standpoint, three varieties of post-typhoid suppuration in ovarian cysts as in other parts of the body: 1. A mixed infection, where both pyogenic cocci and the typhoid bacillus are present. 2. A secondary infection, caused by invasion of pyogenic cocci into an organ whose resisting power has been lessened as the result of enteric fever. 3. A pure infection by the bacillus typhosus alone, of which the author's case is a type. In addition to the case cited, he details twelve others in which the typhoid bacillus was found in the contents of suppurating ovarian cysts.

Opsonins as a Means of Distinction and Identification of Pathogenic Forms of Bacteria.—Schottmuller and Much (Munchener Medizinische Wochenschrift) state that the honor of the discovery of opsonins belongs to Russia at the hands of Metchnikoff, but acknowledge the indubitable service of Wright and his followers in the discovery of a practicable method for their determination. They now advance the theory that if several kinds of bacteria are to be found in a sick man and yet only one of them is influenced opsonically by his serum it is extremely probable that this microorganism is alone the originator of the sickness. When several kinds of bacteria are thus influenced the case is one of mixed infection. They present first the results of their investigations in cases of acute gastritis, gastroduodenal catarrh, and gastroenteritis, then a case in which the bacillus coli communis played a passive role, then cases of epidemic cerebrospinal meningitis, in all of which the offending microorganisms seemed to be pointed out.

Mortuary Reports for March, 1908.

TWENTY-THREE TOWNS.

Aggregate population	240,100
Temporary annual death rate per 1,000	16.7

Causes of Death.

Typhoid fever	2
Diphtheria	1
Whooping-cough	6
Measles	1
Pneumonia	76
Consumption	71
Brain diseases	13
Heart diseases	30
Neurotic diseases	1
Diarrhœal diseases	4
All other diseases	119
Accident	6
Suicide	2
Violence	2
	334
Deaths under five years	77
Still-born	30

—Bulletin N. C. Board of Health.

Serofibrinous Pleurisy in Infants.—Brudzinski (Archiv. de Medic. des Enfants) considers the new physical sign, the "Signe du Sou," which is elicited by placing a sou over the suspected part of the thorax and tapping it gently with another, while the corresponding level on the opposite side is auscultated; the sound is appreciated as if it were conducted through the thorax. If, for instance, we suspect a pleurisy at the right apex anteriorly we percuss over the coin in this region and we ausculate over the right apex behind. In examining axillary conditions we ausculate on the same side of the chest and at the same level, but close to the vertebral column, so as to bring as great a thickness of lung as is possible between the points of percussion and auscultation. We should compare the notes obtained at different levels. In the case of the normal lung the note is dull and entirely devoid of all metallic tinkle; but an effusion produces a distinct metallic tinkle; and if there is much fluid this note is silvery in character. Pulmonary consolidation, on the other hand, elicits even greater dullness than the normal lung. The writer considers this sign (in children at least) as pathognomic of pleural effusion and even more certain than exploratory puncture. Though the latter will differentiate between serous and purulent effusion, it may nevertheless miss an encysted pleurisy. By means of this sign the author has in many instances detected axillary pleuritic effusion, and has verified his diagnosis by exploratory puncture. He has not found, as is generally held, that purulent effusions are more common than serous. We are advised to close one auditory canal with the finger while listening with the other. We are little puzzled how one should proceed. To place a coin at one spot, to tap this coin with another, and to close one ear while the other is listening; to do all these things together would require acrobatic endowments such as most physicians do not possess.

Syphilitic Gumma of the Mammary Gland

Danel (Jour. des Sci. Med. de Lille) records a somewhat rare case of gumma of the mammary gland. There are very few leported cases of syphilitic growths in this rocation. The patient gave no history and no evidences of having had syphilis, neither had it. The author believes that it was a true case of hereditary syphilis. The gland, when first seen, had already ulcerated and showed a mass of grayish tissue exuding typical gummatous secretion. There was almost no pain and the axillary glands were not involved in the growth. The patient's general condition was excellent. There was no cancerous odor. Antisyphilitic treatment gave good results at once and in one month cicatrization was complete. The cause which determined this location for the disease is unknown. There is some difficulty in diagnosis from tubercular lesions of the mammary gland, especially when the gummata are multiple. When ulceration has occurred it should be easy. Age, general condition, absence of glandular involvement, and the evolution of the growth must all be considered in the diagnosis.

Mosquito Bites.

The extraordinary plague of mosquitoes in New York last season, says Dr. J. E. Traub, Attending Physician St. Luke's Hospital, led me to take up a series of investigations with a view to their alleviation. I found that a combination of the fixed aromatics, viz: Menthol, Thymol, etc., with alkalies gave quick relief. While looking for a combination of this nature, my attention was called to Tyree's Antiseptic Powder, a combination of Sodium Borate, Alum, Glycerin, Carbolic Acid, and the crystalline principles of Thyme, Eucalyptus, Gaultheria and Menthae, which has the advantage over the extemporaneous mixtures of being always uniform, easily soluble and readily miscible with talcum without grittiness. When indicated as a dusting powder, a 10 per cent. mixture of Tyree's Antiseptic Powder in talcum, dusted on the exposed parts of the body will keep mosquitoes at a safe distance, or a solution of one or two teaspoonfuls to a pint of water, forms an unsurpassed lotion for the same purpose. This liquid also sprayed about rooms will materially aid in keeping them away. The manufacturer of Tyree's Antiseptic Powder is to be congratulated in having in this preparation a specific for the relief from these pests.

Dysmenorrhea.

In the treatment of this condition I have been in the habit of using macrotys, dioscorea, and if indicated pulsatilla, in the following combination:

℞

Sp. macrotys	dr.	1
Sp. dioscorea	dr.	1
Sp. pulsatilla	gtt.	10
Glycerine	oz.	1
Water q. s. ad	ozs.	4

Mix. Sig. Give one teaspoonful every three hours.

A. C. Smith, M. D.

DEATH FROM ANESTHETICS

Results of Official Inquiry on Subject in Great Britain.

According to the British Medical Journal, a question recently put to the Secretary of State for the home department as to how many deaths occurred during the year 1907 in the metropolitan area and in the other parts of England and Wales respectively from the effects of the administration of anesthetics elicited the reply that the figures for the year 1907 were not yet available. But according to the verdicts of coroners' juries and the certificates of medical practitoners there were in the year 1906 sixty-four deaths in London and 119 in the remainder of England and Wales, caused by anesthetics administered for operations. It was stated that there appeared to be some reason to doubt whether the certificates on which these returns were based were in all cases complete, and that there must necessarily sometimes be difficulty in determining if death under an anesthetic was caused by the anesthetic. It was proposed, therefore to make further inquiry into the matter.

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A Powder

Very inexpensive which, when dissolved in water, makes a pleasant, non-irritating non-poisonous lotion, not staining the linen, and which has a Specific Action against those peculiar pathogenic germs which infest the Genito Urinary organs Male as well as Female, hence is a

VALUABLE REMEDY FOR

Leucorrhea
Gonorrhea and Gleet

If intelligently used, according to directions it will relieve all cases, including the acute cases and the stubborn chronic ones as well. Also very effective in Pruritus of the genital regions.

Its use is most agreeable to the patient, affording quick relief and proceeding steadily to a cure.

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J. S. TYREE, Chemist, Washington, D.C.

Elizabeth College and Conservatory of Music

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CHAS. B. KING,
President.

Sanity and Suffrage.

The London Medical Lancet hands on to the British suffragists a terrible warning from the Finish doctor, Granholm, who asserts that there is a certain connection between the votes-for-women-movement and the frequency of mental diseases.

Dr. Granholm has been carefully investigating in Finland, where women both vote for members of Parliament and are liable to serve as such. He has come to the conclusion that domestic life has become unfavorable for the normal development of the young of both sexes, the result being a marked increase in mental aberration.

In the municipality of Vurmes, where the doctor asserts he is able to exclude any common causes of mental diseases, and where very emancipated views are held by the female population, and particularly by the female teachers, he speedily noticed that the number of lunatics increased from 29 in 1900 to 67 in 1908. The population had increased in that period from 11,888 to 12,137.

Dr. Dyer.

Dr. Dyer has been elected to the position of dean of the medical department of Tulane University of Louisiana, so long and ably filled by Dr. S. E. Chaille. Dr. Dyer has served during the past year as associate dean.

When Dr. Dyer was elected associate dean the selection was generally approved by both the public and the medical profession, because of his standing in the community as a man of high ideals, scholarly attainments and as a public-spirited citizen.

The medical profession particularly welcomed his appointment because of his acknowledged reputation as a scientist, his zealous efforts in behalf of medical organization and especially his initiative and executive ability. His long service as a teacher in Tulane, together with the experience acquired as a teacher and executive officer in the New Orleans Polyclinic, doubly equips him for the new duties he has assumed.

Dr. Dyer assumes charge of the executive work of the medical department at the beginning of a new epoch in the history of medicine at Tulane, and, in fact, throughout the South.

The enviable position attained by the medical department, while hampered by insufficient funds, the independent position it has always occupied in its effort to raise the standard of medical education and the splendid traditions of the school will prove a magnificent foundation for the great institution now made possible by the Richardson and Hutchinson bequests. This means modern laboratories, increased clinical facilities, and all the accessories that go hand in hand with modern medical progress.

The life of Dr. Dyer has been a series of successes in his chosen field. Born at Galveston in 1865, his academic education was gained in private and public schools in Galveston, New York and Virginia, graduating at Yale University in 1887 and at the University of Virginia in 1888. In 1889 he received his medical degree at Tulane from the hands of his distinguished predecessor, Dr. Chaille.

The years of 1889-90 were spent in post-graduate work in New York. He received a diploma from the New York Post-Graduate School, served one year as interne in the New York Skin and Cancer Hospital and became assistant to the chair of dermatology in the New York Post-Graduate Medical School.

Then followed a year of study in Europe, at the end of which time he returned to New Orleans to accept the lectureship on diseases of the skin in Tulane, in 1892.

From 1893 to 1907 he was professor on diseases of the skin in the New Orleans Polyclinic, during which period—from 1895 to 1905—he ably filled the position of secretary to that institution.

In 1905 he became assistant professor on diseases of the skin at Tulane. Two years later he was advanced to the head of the department of skin diseases and at the same time made associate dean of Tulane medical department.

It is only necessary to enumerate the positions of honor to which he has been elected to appreciate the esteem in which he is held by the medical profession. He served as president of the Orleans Parish Medical Society, 1899-1900; president of the Louisiana State Medical Society, 1902-1903; chairman of committee of arrangements of the American Medical Association at its New Orleans meeting in 1903, and second vice-president of the American Medical Association, 1903-04.

Besides the above-named medical organizations, he is a member of the American Dermatological Association and the New York Medico-Legal Society.

As a contributor to medical literature Dr. Dyer has been a constant and valuable worker. He has been one of the editors of the New Orleans Medical and Surgical Journal since 1896 and has become recognized as an international authority on leprosy. Few men have had better facilities for studying leprosy. Being the organizer and first president of the Board of Control of the Louisiana Leper Home he necessarily came in contact with every lepor officially known in the State. His contributions

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upon this disease may be found in six of the standard textbooks of the day. In 1897 he was a delegate to the International Lepra Conference at Berlin, and is at present consulting physician to the Lepers Home; consulting dermatologist to the Charity Hospital, the Eye, Ear, Nose and Throat Hospital, and quarantine committee of the progressive Union.

131 New Doctors in Louisiana.

The privilege to practice medicine was granted to 131 medical students who successfully passed the examinations before the State Board of Medical Examiners on 28th of May. Among the physicians was one woman and eleven negroes. Certificates were also issued to seven white and eight negro midwives. The examination for physicians proved too much for twenty-two applicants. The examining board consisted of Dr. F. M. Thornhill, of Arcadia, president; Dr. C. D. Simmons, of Baton Rouge, vice-president; Dr. E. L. McGehee, of New Orleans, Dr. J. G. Martin, of Lake Charles, and Dr. F. A. Larue, of New Orleans. The successful candidates were:

Whites—S. P. Israel, E. L. Sanderson, S. L. Robertson, H. T. Nicolle, L. A. Love, F. R. Gomilla, N. M. Palmer, H. Jenkins, Allan Kennedy, P. T. Talbot, L. O. Miller, Chas. S. Rodger, R. McGlathery, C. O. Cole, J. F. Gladney, E. J. DeBerg, C. W. Patterson, Chas. A. Hiriart, R. B. Winn, J. R. Ferguson, B. Ward, David D. W. White, David I. Hirsch, Y. Ardoin, B. J. Craig, L. Levy, T. G. Hines, E. F. Brandjonc, J. T. O'Ferrell, Jr., J. W. Reaves, W. R. Orr, E. McConnelly, J. W. Glass, T. F. Long, L. D. Powell, F. T. Winberly, L. A. Youngs, R. H. Foster, W. P. Hickman, W. T. Patton, F. F. Lamothe, G. L. Odom, L. F. Lake, L. B. Austin, W. M. Elkins, S. M. Richardson, H. L. Angerousse, V. A. Lea, T. J. Kay, F. J. Kinberger, J. L. Tarlton, G. F. Roeling, B. A. McClelland, J. C. Miller, W. J. Hodge, Starks Porter, J. E. Landry, A. D. Mouledous, J. F. Dunn, T. M. Berry, W. W. Coulter, Leroy A. Cockfield, M. C. Henry, C. W. Farmer, C. E. Chandler, J. M. Bamber, Guy Wimberly, C. A. Hartman, J. V. Guillory, A. F. Beverly, R. H. Chilton, R. Delisle Wilson, E. F. Stroud, E. Lefleur, A. H. Willis, J. Culpepper, A. D. Stollenwerck, R. R. Welch, J. A. Thames, H. W. Scofield, W. H. Cryer, J. D. Rodger, A. R. Hays, D. O. Pierce, J. H. Sanford, Edgar Giles, L. T. Barker, H. R. Officer, W. L. Stewart, C. P. May, A. B. Whelleiss, W. C. Hendrick, Julio Aquilar Soto, Felix R. Hill, C. A. Bahn, T. A. Hendrick, J. C. Dunn, A. B. Crain, J. S. Davis, J. W. Conley, F. T. Blow, R. D. Schimelpfenig, J. J. Robert, M. S. Downing, T. M. Darwin, J. C. Phillips, W. T. McNeese, O. B. Hicks, F. O. Mahoney, B. F. Johnson, Jr., Leo Saporito, Albert E. White, Dru McMickin, Jesse E. A. Edwards, D. Metinino, E. W. Coffey, J. V. Adams, J. Frantom and Miss Gertrude Louisa Wilcox.

Negroes—F. D. Allen, J. J. Morrow, W. H. Ennis, F. R. Deans, J. T. Miller, L. C. Spight, E. M. Isidore, L. B. Landry, D. W. Turner, E. B. Liddell and J. L. Randall.

Spirachaeta Pallida.

Folet (Le Tribune Medicale) recommends the following stain: Glycerine, gm. 40; acid fuchsin, gm. 2; glacial carbolic acid, gm. ½. Mix and filter after solution. This may be preceded by methylene blue, gm. 2; glycerine, gm. 40; ac. carbolic, gm. ½ to counterstain. In examination of saliva, to a loop of the fresh secretion on a slide add a minute quantity of fuchsin stain, apply cover glass and examine; the counterstain may also be employed. The following solution is suggested as a substitute for Giemsa's: Chloroform, gm. 40; methylene blue, gm. 2; acid fuchsin, gm. 25; carbolic acid, gm. 50; for specimen stain wash with water or, if necessary, alcohol to remove precipitate and examine.

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Of Her Own Accord.

The day the doctor called to treat little Kitty for a slight ailment, it was only by the most persistent persuasion that he succeeded in getting the child to show him her tongue.

A few days subsequent to this the child said to her mother, "Ma, the doctor don't have to tease me to obey him any more!"

"Why not?"

"'Cause every time I see him going by the house now, I stick my tongue out at him!"—Januarary Lippincott's.

Experimental Examination of the Beginning of Streptococcus Venouus Thromboses.

Von Bardeleben (Arch. f. Gyn.,) questions why the same pathogenic cause at one time produces a general infection and at another only a local affection. He believes that this arises from the way the way the entrance of the organism, as well as the degree of virulence of the germ. The second factor is hard to measure. The method of entrance is by the muscular pressure of the uterine contraction forcing the germs into the open mouths of the veins. This will occur only with uterine atony which allows the veins to remain partially open. To close them thrombi must be formed. Only thus can the streptococci enter the circulation. With a normally contracting uterus the vessel mouths will be firmly closed. The germs must then pass through the vessel walls. Later they may pass through the vessel walls or through the formed thrombi. The venous system of the uterus consists of a plexus of narrow capillaries. When deprived of the muscular action of the uterus stasis easily takes place in them. In this way arise the aseptic thrombi. The author has made extensive animal experiments by injection in various ways of streptococci of different degrees of virulence to determine the different methods of infection. When the germs are introduced into the vessels two forms of thrombosis occur, the virulent and avirulent. By transparietal introduction there is but one kind, the virulent. Severe septic thrombophlebitis is found in those who have had early operations performed. These thromboses do not contain pus, and there are active hyperaemia and edema. In cases is which there is thrombophlebitis the virulence of the streptococci is less. The streptococci enter by way of veins filled with coagulum. Pyemia follows infection of germs of low virulence, general sepsis that with those of higher degrees of virulence. The author considers the relations of the streptococci and the leukocytes. The erythrocytes are destroyed by the germs. The leukcocytes are active and a struggle goes on between them and the cocci. The toxins of the cocci act upon the leukyocytes to destroy them. The steptococci become more virulent and conquer the leukocytes. The resistance of the vessel walls is another object to the cocci in intra venous infection. If the virulence is slight they are unable to penetrate the vessel walls. The blood must have stagnated to produce venous thrombosis. The possibility of direct entrance into the blood stream is small and this occurs only with very virulent forms. Others brought in small numinto the blood stream are destroyed. Even virulent streptococci find entrance more easily by way of the lymphatics. The usual route of entrance is by collapsed veins. If these are closed by coagula they may be penetrated by the bacteria. If the latter are virulent they may even enter through the wall. The prevention of puerpal infection is by firm closure of the vessels. Infection can only take place when this does not exist. Atony and venous hyperemia favor infection. Infection directly from the uterine cavity can occur only through uterine thrombi. Increased virulence and lower leukocyte vitality permit further infection. Puerperal thrombophlebitic pyremia can be cured by closure of the central vesselssince it arises from cocci of only moderate virulence which will not pass the walls of the veins. A cure may be effected by ligation while there are no general symptoms of infection. Germs of higher virulence penetrate the vessel walls and the infection becomes general. It is difficult at first to distinguish these two forms. In the pyemia cases we should not expect a sudden onset. By waiting a while we lose nothing and the symptoms become clearer.

The Publisher Pays Much More for His Than He Did Last Year.

Today there is general complaint among publishers that printing paper is constantly growing dearer. In the Middle West many local papers are raising their subscription price 50 per cent. in order to pay for the paper. From the time when Gutenburg first used movable type, made of wood, to the present day of metropolitan papers, some of which consume the product of acres of spruce in a single edition, printing has in very large degree depended upon the forest.

In the face of a threatened shortage of timber the amount of of wood consumed each year for pulp has increased since 1899 from 2 million to 4½ million cords. The year 1906 marked an increase of 93,000 cords in the imports of pulpwood, the highest average value per cord of all kinds, and a consumption greater by 469,053 cords than that of any previous year.

Spruce, the wood from which in 1899

three-fourths of the pulp was manufactured, is still the leading wood, but it now produces a little less than 70 per cent. of the total. How well spruce is suited to the manufacture of pulp is shown by the fact that during a period in which the total quantity of wood used has doubled and many new woods have been introduced, the proportion of spruce pulpwood has remained nearly constant in spite of the drains upon the spruce forests for other purposes. During this time three different woods, from widely separated regions, have in turn held the rank of leader in the lumber supply.

Since 1899, poplar, which for years was used in connection with spruce to the exclusion of all other paper woods, has increased in total quantity less than 100,000 cords, and is now outranked by hemlock. Pine, balsam, and cottonwood are used in much smaller amounts.

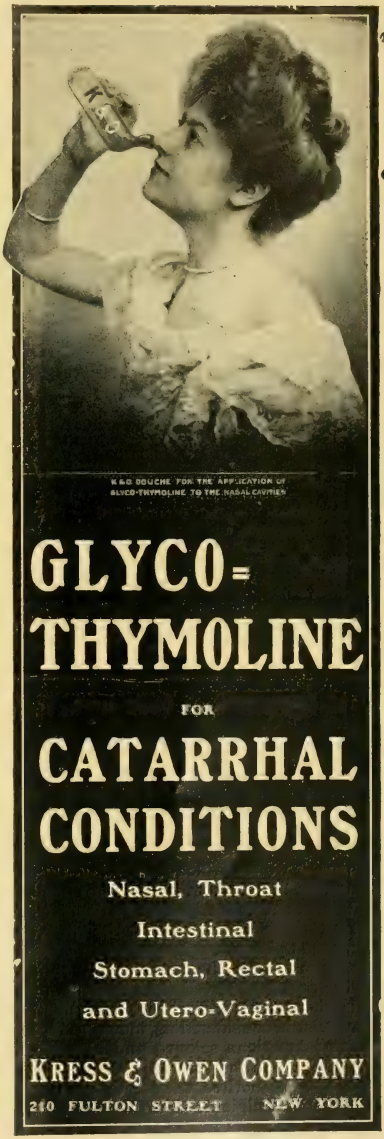
New York alone consumes each year over a million and a quarter cords of wood in the manufacture of pulp, or more than twice as much as Maine, which ranks next. Wisconsin, New Hampshire, Pennsylvania, and Michigan follow in order given. Sixty per cent. of the wood used in New York was imported from elsewhere, and even so the supply appears to be waning, since the total consumption for the State shows a small decrease since 1905, whereas the other states named have all increased their consumption. Other States important in the production of pulp are: Massachusetts, Minnesota, Ohio, Oregon, Vermont, Virginia, and West Virginia.

The average cost of pulp delivered at the mill was $7.21. The total value of the wood consumed in 1906 was $26,400,000. The chief item determining the price of paper is the cost of pulp. An example of the increased price of paper is found in the case of a publisher of a daily in the Middle West, who recently paid $1,200 for a car load of paper. The same quantity and grade of paper cost a year ago but $800.

The chemical processes of paper making, which better preserve the wood fiber, are gaining over the mechanical process; in 1906, less than 50 per cent.

All importations of wood for pulp are from Canada, and comprised, in 1906, 739,000 cords, nearly all of which was spruce. Four and a half million dollars' worth of pulp was imported in 1906, a slight falling off from 1905.

Circular 120 of the Forest Service contains a discussion of the consumption of pulpwood in 1906, based on statistics gathered by the Bureau of the Census and the Forest Service. The pamphlet can be had upon application to the Forester, United



IMITATION OR SUBSTITUTION,

A physician in speaking of Glyco-Thymoline imitations remarked that they reminded him of Oleomargerine—"which might be used when it was impossible to get better."

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The nurses are provided from the Saint Luke's Hospital Training School for Nurses.

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States Department of Agriculture, Washington, D. C.

The First American Scientist to Receive a Nobel Prize.

When the trustees of the Nobel Fund in their awards for 1907 decided to confer the annual prize for physics on Prof. Albert A. Michelson of the University of Chicago, the event was significant as being the first time that this distinguished honor has been paid to an American man of science. The award of the Nobel prize for the promotion of peace to President Roosevelt in 1906 naturally met with the enthusiastic approval of the people of the United States, and so this more recent honor to an illustrious physicist is considered as mach a recognition of American science and capacity for original work and minute specialization as it is a well merited tribute to the the distinguished recipient. Furthermore, it is an added source of gratification that Professor Michelson's work represents most largely the results of American training and environment and has been carried on for the most part in American institutions.—"A Nobel Prize for American Science," by Herbert T. Wade, in the American Review of Reviews for January.

Frequency of Micturition in Women.

In women of middle age frequency of micturition is a common symptom of what iswrongly known as "irritable bladder." One of the most important inquiries in cases of frequency of micturition should be, is its octurnal? In some cases of prolapse of the uterus the frequency of micturition is notably present only during the day time. The condition is best considered under three headings: (1) those cases which depend on some change in the urine; (2) those which depend on some condition outside of the bladder, and (3) those which depend upon actual disease of the urinary tract from the kidney downwards.

The most common cases are those which depend upon some change in the urine; thus, excess of urates, excess of phosphates, and hyperacidity. In these patients diet, digestion, and sedentary occupations are often responsible.

The common lesions outside the bladder are tumors on the fundus of the bladder, early pregnancy, prolapse of the uterus, unilateral pelvic cellulitis, and pelveo-peritonitic adhesions. Give potas. cit., hysoscyanus and chloroform.

The third group of cases may require the

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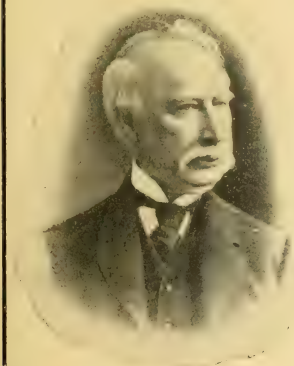
Miss M. A. Newton, Superintendent.

What Prof. D. Hayes Agnew said:



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The late Prof. D. Hayes Agnew was dining with us, and in conversation with my wife, on the subject of her health, said: "Mrs. Welchans, have the doctor get you a case of the Genuine JOHANN HOFF'S MALT and use it freely and liberally. No small wine-glass doses, but a good half tumbler full or even more, every meal, and you will not have cause to regret it." I got her a case at once, and the marked benefit she derived from it has made me a warm friend and advocate of the Malt, as it also increased our gratitude to my lamented and honored friend.

With the hope that the virtues of the Malt Extract may become known to all physicians,

I am gratefully yours,

GEO. R. WELCHANS.

Lancaster, Penna.

JOHANN HOFF'S MALT EXTRACT

MAKES FLESH AND BLOOD

cystoscope, although even here the cystitis can be discovered by urinary examination. Mild cases do not call for lavage. Besides prolapses, vaginal discharges or dirty catheters may cause cystitis. Calculus, tuberculous ulceration, malignant growths, papillomata, varieces at the neck of the bladder are rare and require the cystoscope for differential diagnosis. Stone in the kidney, renal growths,. Bright's disease, diabetes, movable kidney, pyelitis, pynonephrosis, and tubercle of the kidney may all cause frequency of micturition, and may all be diagnosticated by appropriate examinations of the kidney and the urine.

The Conception of Mesenchym and the Doctrine of the Specificty of the Germinal Layers.

Voit (Deutsch. Med. Woch.) reviewed the gradual change that has occurred during the last few years in the two embryologic conceptions named in the title. Mesenchym was the name of all cell masses lying between the two ephithelial germinal layers and was introduced by the Hertwigs. The general opinion was that in vertebrates this mesenchym was derived from various portions of the middle layer (the mesoblast). All organs originating in it were thought to be its products. Late investigation, however, have conclusively demonstrated that the two epirdermic layers can take part in the function of the formation of the mesenchym, especially the ectoderm so that a number of structures and organs previously attributed to the mesoderm are really ectodermic or entodermic in origin. Kastschenko and Goronwisch showed the derivation of certain cranial structures from the ectoderm in vertebrate embryos, and Kupffer, Dohrn and others found that ectodermal mesenchym formed the cartilages of the visceral bones of many vertebrates. The assertion ot Klaatsch that the scleroblasts, the formative cells of bones and teeth, were of ectodermic origin and contradicted by some observers, has lately been reaffirmed by Szivs in Voit's laboratory for a great number of ossifficationes of the skin of fishes that arose from osteoblasts formed by the ectoderm. Maurer and Pletterer claim, as a result of their investigations, that a large portion ot thr cutis of the skin arises from the basal cells of the ectoderm. These observations, however, for the present have not been verified.

It is certain, nevertheless, that in the future the mesenchym cannot be considered only as a product of the entoderm and that all structures and organs arising from the mesenchym cannot be made one homeogenous group. The name mesenchym today represents only a histologic conception. In the development of the organs from each of the germinal layers two different procedures can obtain. If by folding, or bud formation, from the ephithelial layer, an organ is developed, its origin from the respective layer is easily demonstrated. The origin of most of the organs thus developed is today finally established. In other organs the formation is different and consists in a separation of the cells from each other, so that they have a period of mesenchymal life. This obtains not only for mesoblastic layers, but also for ecto- and entoderm. In this way the mesenchym fractions arise from different origins, for their very mesenchymatic character cannot be differentiated any more, so that it is difficult in these cases always to lay hand on the germinal layer that gave rise to the mesenchym formation. Only where the different portions portions of mesenchym retain for sometime their differential characters can certainly be obtained. Some cases in which success was obtained are in part cited in the beginning of this review. It will be necessary by future investigations to determine the origin of any of the mesenchymal group of structures and organs. It is very important that the fact has been demonstrated that uniform tissues can arise from two different germinal layers. Thus the cartilagenous structures are partly mesodermal, partly ectodermal; for the osseous tissue the same condition has been made almost certain. More numerous are the observations on the origin of smooth and striated muscle fibres from ectoderm as well as from mesoderm. This was long known for the smooth muscle cells of the sudatory and sebaceous glands; some splendid researches have lately shown the same for the muscles of the eye of vertebrates. and for muscles in many avertebrate animals.

The doctrine of the specificy of the germinal layers must be revised. The specificity of tissues and the specificity for organs must be kept apart. The idea that a certain tissue can always arise only from one germinal layer must be abandoned. The same does not obtain for the specificity of organs. In view of comparative anatomic problems the proper valuation of the of the various organs will be the result of further investigations. For pathology it will result in valuable knowledge about the character of tumors and other new formations, making their arrangement as to their genetic character dependent upon the knowledge of the developmental origin or the tissue in which they are located.

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there is no remedy like

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Many MEDICAL JOURNALS specifically mention this
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It can be obtained of Chemists and Pharmacists everywhere.

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The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these, ***finds that no two of them are identical,*** and that all of them differ from the original in composition, in freedom from acid reaction, in susceptability to the effects of oxygen when exposed to light or heat, ***in the property of retaining the strychnine in solution,*** and in the medicinal effects

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. ***Fellows.***"

As a further precaution, it is advisable that the syrup should be ordered in the original bottles; the distinguishing marks which the bottles (and the wrappers surrounding them) bear, can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

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Peritonitis.

Berry (Lancet) says that the term peritonitis is a misleading one, in that it is not the mere inflammation of the peritoneum that is dangerous. This inflammation is in itself often exceedingly beneficial and protective. But peritonitis is dangerous in proportion as it is associated with absorption from the peritoneal cavity. It is the absorption of toxins from the peritoneal cavity, not the inflammation of the peritoneum, that is dangerous. The peritoneal cavity is a vast lymphatic space from which absorption of toxins readily takes place. In the great majority of cases of peritonitis the causative bacteria are introduced into the peritoneal cavity from within by passing through the wall of one of the hollow abdominal viscera—the appendix, the intestine, stomach, gallbladder, Fallopian tube, etc. Not uncommonly the poisonous contents of the viscera are introduced through a visible opening in the wall of the viscus—socalled perforative peritonitis. In appendicitis the amount of septic material escaping into the peritoneal cavity is usually quite small—perhaps only a drop or two—as the perforation of the appendix is usually preceded by adhesive inflammation of its lumen, shutting off its cavity from that of the cæcum, so that all that escapes is what is in the appendix at the time of perforation. In cases of fulmi ating appendicitis there is either a previous distention of the appendix with foul septic fluid, or the sudden rupture of an abscess that has slowly and quietly formed outside of the appendix and which ruptures secondarily. But where a large, hollow viscus like the stomach or cæcum is perforated, there is rarely any preceding adhesive inflammation, the perforation occurs suddenly, and is immediately followed by the pouring out into the peritoneal cavity of a vast quantity of septic material. There is usually a sharp, severe pain, limited at first to the site of perforation.

The peritoneum is normally insensitive to mechanical injury, but is very sensitive to the application of irritant poisons such as septic material. Sudden, severe, and persistent pain, accompanied by tenderness and rigidity of the abdominal muscles, is often sufficient for the diagnosis of perforation of the stomach. Nausea and vomiting usually follow soon afterward, but it is not necessary or desirable to wait for the later symptoms of elevation of the temperature and increased frequency of the pulse, as these latter indicate septic absorption, which it is desirable to forestall. Elevation of the pulse is much more important than a rise of temperature.

As regards the effusion of serous fluid into the peritoneal cavity, while bloodserum is bactericidal, yet the bactericidal power of serous fluid diminishes in the immediate neighborhood of an infected area. Consequently its letting out by operation leads to the effusion of fresh, more strongly bactericidal fluid. The particular bacillus most often causing peritonitis is the colon bacillus. Of late undue stress has been laid upon the quality of the bacteria and too little upon the quantity of the poison. The severity of the attack depends chiefly upon the latter quality.

Operation in cases of peritonitis does two things only: (a) by closing a perforation or removing a septic focus, the further entrance of poison into the peritoneum is prevented; (b) to a limited extent the poison alread within the peritoneal canity is removed. But operation cannot removed from the blood the poisons, bacteria, or oxins already there. This must be done by encouraging the excretory powers of the kidneys and other organs by the administration of fluid.

For purposes of treatment, the writer divides all cases of peritonitis into four classes: (1) Those in which there is no perforation of any viscus and no collection of fluid in the peritoneal cavity. The amount of poison here is very small, and the best form of treatment is free purgation by salines and the administration of large quantities of fluid either by the mouth, the rectum, or into the subcutaneous tissue of a vein. Opium should be avoided. It may be desirable to drain the peritoneal cavity if there is any evidence of the accumulation of free fluid. (2) Those in which there is a recent perforation of a hollow viscus. Here an immediate operation should be performed, with the object of closing the perforation and preventing further extravasation into the peritoneal cavity. The sooner the operation, the better. Here it is prevention rather than cure of peritonitis that is aimed at. The less that is done to the peritoneum by washing or sponging the better, free drainage being the best means of getting rid of the extravasated septic material. Purgatives should be avoided and nothing given by the mouth, with the exception of water. (3) The great majority of cases of appendicitis. Most of these will improve and pass into a more favorable condition for subsequent operation, if not interfered with by operation at the very beginning. Purgatives or large enemata should never be given, nor any food or fluid by the mouth. The patient can very well do without food for a day or two. The shorax should be considerably higher than the pelvis, in order that any fluid may gravitate to the latter position, where it is more

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easily dealt with. (4) Cases of general diffuse peritonitis, with general distention of the whole abdomen and purulent fluid diffused over a large portion of the abdomen. The writer thinks the Ochsner method of treatment the best, i.e., immediate radical surgical intervention, freely opening the abdominal cavity, breaking up all adhesions, opening all pockets, and thoroughly irrigating the entire peritoneum. For the very worst class of cases the Murphy method is undoubtedly good; this consists in making a small opening in the abdomen, closing the perforation or removing the appendix, the introduction of a large drainage tube into the pelvis, placing the patient in a sitting posture of from 35 to 45 degrees, and the administration of a quart or two of saline solution every two hours by rectum. The writer is opposed to indiscriminate immediate operation in appendicitis, and thinks that the method of treatment of twenty-five years ago gave a lower mortality.

Acute Spreading Gangrene.

James (Lancet) reports two cases. Bacteriological results were the same in both, i.e., cultures were obtained of a variety of the Bacillus aerogenes capsulatus and it was impossible to discover any attempt at spore formation. Case 2 was one of gangrene following compound fracture of the leg, for which amputation was done thirty-one hours after the accident. This patient recovered. Case I reported in detail was

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that of a man of thirty years run over by a 'bus, which caused a compound fracture of both bones in the upper third of the left leg. Posteriorly there was a gaping wound exposing the bellies of the gastrocnemius, one of which was partially ruptured. The wound was very dirty. Pulsation was evident in both tibial arteries at the ankle and an effort was made to save the limb. Twenty-eight hours after admission, a chill came on with fever, and the next morning the wound was definitely gangrenous and the whole limb swollen. The general condition forbade any amputation, so the whole wound was opened up and hot fermentations were applied. On the third day the leg was black and green about the fracture and large black bullæ were noticed. Death came eighty hours after admission. Blood-stained fluid from the bullæ gave the bacteriological results above noted. The author notes that organisms usually anaerobic have been isolated from many cases of spreading gangrene. Though generally identified as Bacillus aerogenes capsulatus, Bacillus enteritidis sporogenes, or Bacillus edematis maligni, the organisms isolated rarely conform strictly to the classical descriptions of these microbes. In the present instance the bacillus obtained seems to be most nearly related to the Bacillus aerogenes capsulatus, though differing in some respects.

Stokes-Adams Disease.

Cardarelli (La Riforma Medica.) considers that Stokes-Adams disease is a condition dependent on a pathological state of the nervous system. The symptoms consist of slow and intermittent pulse not modified by the position of the body or muscular efforts, indreased vascular pressure, arteriosclerosis, cardiac arythmia, albuminuria, and epileptiform or apoplectiform attacks. The author's reasons for his belief in the neurotic origin of the condition are based on its infrequency in comparison with that of cardiac myocardial lesion; that the patient does not complain of cardiac symptoms, but of vertigo and epileptic attacks; by compression of the vagus in the neck one can obtain the syndrome of Stokes-Adams, with syncope and epileptic attacks. The author thinks these symptoms cannot be referred to anemia of the bulb. After using atropine the patient does not respond to pressure on the vagus.

Opening Peritonsillar Abscesses:--- Meyer (Berliner klinische Wochenschrift,) advises opening such abscesses through the supratonsillar fossa. It is at this point, he says, that the infection usually begins and from this direction the abscess cavity is most easily to be reached. The method has the advantage that a blunt instrument may be used while it is easily possible to discover collections of pus so small as to be reached only with difficulty by means of the ordinary incision. He uses for the purpose a blunt hook whose bent part is a little over a centimeter in length. The patient's tongue is depressed and the point of the hook is introduced into the fossa. It follows the line of least resistance, usually upward and outward, and then the opening is widened by a sharp pull. If the abscess is very deep or behind the posterior pillar it may be necessary to penetrate through the posterior pillar itself, or between this and the tonsil, or through the latter. Incision through the anterior pillar is practised only in very advanced cases that are almost ready to burst. The author greatly prefers the use of the hook in this way to incision, especially as it often enables very early evacuation of the abscess and therefore tends to shorten the duration of the illness.

The Morphology of Urine and Bile:--- Veit and Wederhake (Munchener medizinische Wochenschrift,) say that Virchow first described small bodies giving a reaction similar to starch with certain reagents and therefore called corpora amylacea. These are found in the substance of the spinal cord in the ependyma of the cerebral ventricles, in the prostate gland and its secretion, in the lung, in the sputum in pulmonary tuberculosis and bronchial asthma, in carcinoma, in the colostrum, in the urine, and bile. Several methods for staining these have already been described, but the authors prefer the following procedure: The fluid in question is centrifuged and the supernatant fluid is poured off. To the sediment a drop of tincture of iodine is added and the tube is well shaken. Then 1 c.c. of concentrated solution of croceinscharlach 7 b in 70 per cent. alcohol is added and the whole is well shaken. The sediment is then washed by recentrifuging with water and may then be examined or preserved in Farrant's medium. The typical amyloid bodies are stained bluish black or a lighter blue, but in addition to these other similar bodies are also found which are stained red and exhibit slight morphological differences. The authors believe that the discovery of these true amyloid bodies in the urine has diagnostic value in distinguishing between bladder and renal effections. The absence of amyloid bodies from a pathological urine indicates that no catarrhal bladder affection exists, whereas there their presence shows that this organ is also involved. The authors do not offer

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any suggestions as to the origin of these bodies, but as they occur in scrapings of the interiors of gallstones they consider it possible that they have something to do with the formation of vesical calculi as well as of gallstones.

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Nelaton Catheters.

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At the meeting of the Tri-State Medical Association of Mississippi, Arkansas, and Tennessee held in Memphis on November 22, officers were elected as follows: *President*, Dr. Eugene Johnson, of of Yazoo City, Miss.; *Vice-Presidents*, Dr. R. E. Howard, of Durant, Miss., Dr. C. M. Lutterloh, of Jonesboro, Ark., and Dr. Herman Hawkins of Jackson, Tenn.; *Secretary*, Dr. Richmond McKinney of Memphis; *Treasurer*, Dr. Marcus Haase, of Memphis.

Many children are so crammed with everything that they really know nothing.

In proof of this, read these veritable specimens of definitions, written by public-school children:

"Stability is taking care of a stable."

"A mosquito is the child of black and white parents."

"Monastery is the place for monsters."

"Tocsin is something to do with getting drunk."

"Expostulation is to have the smallpox."

"Cannibal is two brothers who killed each other in the bible."

,,Anatomy is the human body, which consists of three parts, the head, the chist, and the stummick. The head contains the eyes and brains, if any. The chist contains the lungs and a piece of the liver. The stummick is devoted to the bowels,, of which there are five, a, e, i, o, u, and some, times w and y."—Everybody's Magazine.

A Noteworthy and Helpful Series of Articles.

The second of Dr. George Lincoln Walton's series of five popular papers on "Worry and Allied Medical States" appears in the December Lippincott's, under the title of "The Doubting Folly." The author's long experience as a neurologist has given him a keen insight into the troublesome mental maladies with which so many of the sanest of us are afflicted, and he has written the articles in a breezy, non-technical way that makes them good reading. All who suffer from sleeplessness, undue self-consciousness, hypochondria, obsessions, or the worrying habit will find these articles decidly helpful, for Dr. Walton explains how the disorders may be overcome. The complete novel in the issue is "The Career," by Kathleen Jarboe. It is a very striking story of a young musical genius who marries a man who knows nothing and cares less about music, which situation brings on trouble a-plenty. It is a story which will appeal with especial force to those musically inclined, but there is small likelihood of anybody who starts to read the story laying it down before it is finished.

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Change of Scene and Proper Medication.

During the past two months. we have met with more la grippe than anything else, and the number of cases in which the pulmonary and bronchial organs have been very slightly or not at all involved, has been greater than we have noted in former invasions. On the contrary, grippal neuralgia, rheumatism and hepatitis have been of far greater frequency, while the nervous system has also been most seriously depressed.

With each succeeding visitation of this trouble we have found it more and necessary to watch out for the disease in disguise, and to treat these abnormal manifestations; consequently we have reliod upon mild nerve sedatives, anodynes and tonics rather than upon any specific line of treatment. Most cases will improve by being made to rest in bed and encouraging skin and kidney action, with possibly minute doses of blue pill or calomel. We have found much benefit from the use of antikamnia and salol tablets, two every three hours in the stage of pyrexia and muscular painfulness, and later on, when there was fever and bronchial cough and expectoration, for an antikamnia and codeine tablet every three hours, Throughout the attack and after its intensity is over, the patient will require nerve and vascular tonics and reconstructives for some time. In addition to these therapeutic agents, the mental condition condition plays an important part, and the practitioner must not lose sight of its value. Cheerful company, change of scene and pleasant occupation are all not not only helpful, but actually necessary in curing the patient.

Asheville, N. C., Dec. 16, 1907.

Dear Doctor;—Briefly we wish to state to you that we are successful, and WHY we are sccessful in treating alcoholism and drug addictions in The Telfair Sanitarium here, because, being ethical, we can only get desirable patients by the aid of reputable physicians. Most treatments have proven failures, as you know—especially "short term" cures, because, except in rare cases where patients have very strong will power and determination, cures cannot be quickly made. Our treatment takes away the desire for liquor, morphine or other drugs, and at the same time each patient is under our constant care, and we endeavor to regulate the entire nervous, mental and general condition to normal health, so that there is no need for drugs of any kind. This we usually accomplish in four months. Alcoholic treatment $100.00. Drug $125.00. $7.00 per week board. This includes all the services of physician, nurses, and attendant when necessary to safeguard a patient. Our place is finely equipped, homelike, comfortable; and we assure you that any patient you may send us will get best of medical attention and general care.

Fraternally yours,
W. E. ASHWORTH,
Resident Physician, Telfair Sanitarium.

Intestinal Autointoxication in Relation to Feeding of Infants.

Longo has experimented as to the fecal and urinary toxicty and the intestinal putrefaction in infants fed on milk alone, or on the commonly used farinaceous foods. Their ages varied from twenty-one to twenty-three months. He finds thot a certain amount of incompletely assimilated proteids are in the circulation of these infants, There is also a large amount of albuminous material separated by the metabolism of tissues. The different grades of toxemia observed in different infants depending on the food they take, and not solely on a greater or less proportion of these poisons on the intestine, put also on the chemical activity of the cells. The children experimented on could sustain life without loss of weight on prepared infant foods, tapioca, etc., and without any bad effects. These foods produce a prolyuria. There is very little iniestinal putrefaction under this diet. Urinary toxicity is the greatest on a milk diet, much less on a farinaceous.—Rivista di Clinica Ped.

Dystocia by Progressive Deformity of the Pelvis in Mountainous Countries.

Dresch believes that in mountainous countries, where the women are obliged to mount steep inclines burdened with heavy loads there is a gradual progressive deformity of the pelvis that is not accompanied by any symptoms of osteomalacia. He draws this conclusion from the occurrence in his practice of a number of deliveries in contracted pelvis which he has observed in women who had not had any pregnancy in a number of years, and who had previously been delivered without operation of more normal sized children. There was no disease and no evidence of deformed metabol-

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Apply over and well beyond the boundaries of the inflammation.

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ism to account for the narrowed pelvis. He believes that in these cases the pelvis was at first of normal diameter, and that it had gradually changed its shape and diameters as a result of altered physical relations. —Gazette Medicale de Paris.

Different Zones.

While giving a geography lesson, a teacher called upon a precocious youngster named Johnny to tell what he could about "zones." Johnny responded as follows: "There are two kinds of zones, masculine and feminine. The masculine zones are temperate and intemperate, while the feminine are both horrid and frigid."—January Lippincott's.

Thinklets.

Boarding-house milk is like the quality of mercy—not strained.

The man who has no scruples does not hesitate to take a dram.

After a ride on the water-wagon a mint-julep comes as a relief—a kind of a bar-relief.—January Lippincott's.

Agricultural Hints.

If you wish to raise a good crop of bachelor's buttons, it will be necessary to see that there are no widow's weeds in the vicinity.

A good hay-rake has about fifteen teeth —dependent, of course, on the age of the rake.

Do not drain off your swamp land. Plant tadpoles and raise frogs, and ship the hops to Milwaukee. Here we may say that the hop is somewhat larger than the skip, though not so large as the jump.—January Lippincott's.

Myalgia, Importance and Treatment of.

Peritz empasizes the importance of differentiating the importance between Neuralgia and myalgia especially on account of liability of the latter to be mistaken for an affection of some vital organ, and directs attention to the efficacy of proper treatment. The painful points in neuralgia generally correspond to to the points at which the nerve emerges from the bone or comes toward the surface. In myalgia, the pain is usually located in the muscle itself, and is always distributed over a much larger area ihan in neuralgia, while the tenderness persists during the intervals between the attacks of pain. There is also generally a zone of hyperalgesia above the affected muscles, but it does not parallel the course of the nerve. The myalgia generally develops by preference where the muscle is thinnest and most exposed. In the writers illustrations the myalgic points are seen to correspond to the points where the muscle blends into its tendon, and they are generally at the edge of the muscle.

Myalgia has been found by the author to be rebellious to electricity, massage, and the salicylates, but has always yielded promptly to injections of a 0.2 per cent. physiologic salt solution, directly into the muscle. Several injections are made at different points over the painful area, and repeated later if necessary. In one instance, an elderly patient was suddenly attacked with pain in the precordial region, which recurred spasmodically several times a day and radiated into the arm. Nothing abnormal could be found in the heart action except a rythmic dropping of every fourth beat. The writer was able to determine the existence of myalgia of the upper part of the free margin of the pectoralis major. Injection of the salt solution cured the myalgia and the nervous symptoms, including cardiac arrythmia, also vanished.

The author thinks it probable that the form of angina pectoris in which benefit is obtained from massage is probably myalgia. In the epigastric region it is liable to be mistaken for a stomach trouble. The affected part of the rectus muscle may exert pressure on the stomach, especially when that organ is distended after a meal, producing symptoms simulating "nervous dyspepsia." The reflex symptoms of myalgia may include headache and vertigo and pains in the compensating sound muscles as in myalgia of the gluteal muscles, in which the pains are generally referred to the outside and calf of the leg.—(Berliner klinische Wochenschrift.)

Morphine, Constipating Action Of.

Magnus describes his observations on the effect of morphine on the intestinal tract. These were made mainly on cats, though some dogs were also used. Nothnagal maintained that therapeutic doses of morphine stimulated the splanchnic inhibitory fibres and in this way checked intestinal motility. Some observers have agreed with this view, others have opposed it, but most of them regarded the small intestine as the chief site of the morphine action. The writer found by means of radiographic observations on cats in whom diarrhoea had been induced by milk diet, that it is the stomach that is most affected by the alkaloid. The constipating effect is not produced the sympathetic inhibitory fibers, for section of these in the experiment animals did not modify the results. The chief action of the morphine consisted in a persistent contraction of the stomach-wall in the neighborhood of the so-called sphincter of

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the pyloric antrum. At the same time the pylorus retarded the passage of the food into the dueodenum so that it entered the small intesttne much belated, and then only very slowly and in small portions that were more fully digested than usual. The small intestine was slightly affected, and the colon least of all. The author reminds the reader that these results as yet apply only to the two varieties of animals experimented on, and suggests careful clinical observations with a view to estimating the fidelity with which the conditions in man are reproduced in the animals.—(Munchener medizinische Wochenschrift.)

The Diagnosis and Operative Treatment of Tumors of the Spinal Meninges.

Schlute (Muench. Med. Woch.,) gives a detailed description of two cases, in which the cardinal symptom of extra-medullary tumors of the spinal cord, namely, the radiating pains, was absent, or existed only to a moderate degree. The first case—fibroma of the dura of the dorsal cord—presented the symptom of a slowly progressive transverse lesion, with preponderating paralysis of the left leg. There was complete absence of pain. No landmarks existed for the diagnosis of myelitis or insular sclerosis The fact that the para-paresis rapidly increased when the patient was placed on his stomach was most readily accounted for as due to increased pressure thrnugh the change of position, in the presence of the tumor or vertebral disease. Surgical interference was followed by recovety,

In the second case—spastic paraplegia, with moderately severe pain in the right shoulder, tenderness on pressure of the fifth thoracic vertebra (spinous process), hyperesthesia in the area of the seventh dorsal segment—the operation was unsuccessful (psammoma), and the autopsy showed the existence of tuberculous disease with compression myelitis.

In connection with these case,, the author gives a review of 18 cases of tumor of the spinal meninges. Among these 18 cases, three were nol operated upon; no tumor was found in two cases: the remaining 13 cases, six were cured by the operation, and one was permanently improved. These findings approximately correspond to Oppenheim's latest statistics, and are certainly encouraging in view of the absolutely hopeless prognosis of conservative treatment.

Anatomical and Physiological Observations on Spinal Anaesthesia.

Kronig and Gauss (Munchener Medizinische Nocheuschrift) state the danger of spinal anaesthesia, thus; 1. The danger that the anaesthetic injected into the subachnoidal space shall be absorbed so quickly as to produce severe toxic general symptoms. 2. The danger that the injected anaethetic may affect segments of the cord and areas of nerves in which even a transient suspension will result in the death of the individual, such as the segments of the spinal medulla which govern respiration, the exit of the phrenic nerve from the spinal cord, and the medulla oblongata. 3. The danger that the anaesthetic will not simply interfere transiently with the function of the affected nerves, but will create permanent disturbances and resultant paralyses, such as paraplegia of the lower extremities, with paralysis of the bladder and rectum. In order to determine whether the anaesthetic injected into the lumbar sac could be prevented from reaching the medulla the anatomical and physical conditions in the subarachnoidal space were studied, particularly the behavior of the spinal fluid in the subarachnoidal space in different positions of the body, the dependence of the spreading of the anaesthetic on the proportion of the specific weight of the spinal fluid, and the dependence of the spreading of the injected anaesthetic in the spinal fluid upon the diffusion and the currents of the spinal fluid in the subarachnoidal space. Their studies show that the spreading of the injected anaesthetic solution in the subarachnoidal fluid is dependent on the density of the two fluids, that the spreading of the anaesthetic solution which is specifically lighter than the spinal fluid when injected into the lumbar portion oi the subrachnoidal space with the woman in a sitting position is limited above at first by the superjacent subarachnoidal fluid, though later extension by capiljary attraction cannot be excluded, and that the spreading of the anaesthetic solution in the the subarachnoidal space is really influenced by the elevated position of the pelvis.

Nasal Tampons After Operation.

Goldschmidt (Monatsschrift Ohrenheilkunde,) recommends instead of the usual tampon which rhinological surgeons have found generally unsatisfactory, the open treatment of the nasal wound following internasal operations. He employs a powder called renoform bosicum, which powder has a strength and action similar to that of andrenalin. Besides being aseptic it possesses an additional advantage in that the patient can use it himself.

After the first hemorrhage has passed, the author treating this hemorrhage with insufflations of this powder, he instructs the patient to continue the insufflations at from 15 to 20-minute intervals during the next day.

The advantage of treating nasal wounds by the open method must be apparent to all rhinological surgeons who have tried both methods.

The Cancer Problem.—A Suggestion.

Skerrett notes that the essential characteristic of the cancer cell is its apparunlimited power of multiplica-s the eutlytion. The nucleus determine division of the cells. Is it possible asks the author, to so act upon the nucleus as to rob it of its abnormal power of proliferation? Chemically it consists of nuclein. Cancerous growths are particularly rich in this substance. Certain leucocytes may perhaps supply the stimulus and provide the nourishment for cancer cells. If the nuclein is so important for rapid mitosis, may this process not be considerably modified by its withdrawal from the food altogether or by such chemical action upon it as to alter its functional activity? From a chemical point of view, nuclein is remarkable among organic bodies for its high percentage of phosphorus. Can we substitute for phosphorus a chemical having somewhat similar affinities? The author suggests for the substitution for phosphorus in the nuclein molecule, of the heavier metals of the group to which it belongs and advances the following proposition: 1. The action on carcinomatous tumors of a diet free from nuclein and its progenitor—nucleoproteid. Such a diet in the case of a man would correspond somewhat with the purin-free diet suggested for gout and its manifestations—and by the way, and observed associations between this disease and cancer would be extremely interesting. Cancer has much greater incidence among those taking a mixed diet than among vegetarians, and a vegetarian as well as a restricted nitrogenous diet has been extolled as beneficial in both external and internal cancer. This plan, "the nuclein-free diet," could also be tried in conjunction with the internal administration of arsenic or other or other member of its periodic group. 2. The action of a "phosphorous-free diet" with or without the internal administration of arsenic nic, might be tried. Seeing, however, that phosphorous is such an important element in the nervous system of vertebrates, it is doubtful whether the living organism could withstand its entire withdrawal from the food, and it is possible that a cancerous growth might still draw its necessary phosphorous from the nervous system, thus producing mental depression or other nervous state. 3. The production artficially of extensive inflammatiory conditions far away from a cancerous growth with a view to withdrawing the leucocytes thereto and

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noticing the effect, if any, might prove interesting if of no practical importance.—Brit. Med. Jour.

Primary Carcoma of the Vagina and its Operative Management.

Jacub(Zeut. f. Gynak.)reports two cases. In the first case the uterus also was removed although not involved in the carcinomatous process. Four months later there was recurrence and the patient died. In the second case onlythe diseased vagina was removed. This patient was well a-year and a half later.

Both were typical cases of primary vaginal carcinoma. One woman was 44 years old and the other 57. Both had given birth to children. In both cases the neoplasm occupied the posterior vaginal wall and histologically proved to be pavement ephithelioma.

Although very tedious, the author applied the perineal operation in both. A transverse incision is made the perineal region and by means of dull dissection the diseased vaginal wall was separated from the rectum posterioly and laterally. In the second case the final incision circumscribed the diseased area without touching it. In the first case the uterus was removed at the same time. The danger of inoculating healthy structures was thus avoided. A fairly normal vagina was left in both cases because a logitudinal strip of mucosa was present in the anterior vaginal wall. This permitted the possibility of sexual intercourse, a not unimportant consideration in married lpepoe.

The Hypochondriac.

The hypochondriac is one who devotes undue attention to his own physical or mental condition, and who is unduly anxious regarding his health.

This state of mind does not, at first thought, seem a very serious trouble, but when the question of health occupies the whole attention of an individual, the condi is a most unhappy one, especially for his friends. The tendency, even in mild form, narrows his field of usefulness and pleasare, and gradually sets him apart from his fellows. This is especially true since his fears are rarely strictly limited to matters of health. His anxiety to be perfectly well is generally accompanied by an anxiety to be perfectly comfortable and perfectly safe, an anxiety which paves tho way to mental discomfort, and causes the overcautious to appear a coward.

The hypochondriac may offer the picture of health, or may have some real ill regardwhich he is unduly anxious.

Let us study the typical hypochondriac as he presents himself to the physician. The consultation is preceded by one or more letters explaining his exact condition, naming the previous consultants and describing the various remedies he has taken. At the time of his visit volumnious notes are consulted, lest some detail be omitted. In his description anatomical terms abound; thus, he has pain in his lungs, heart, or kidney, not in his chest or back. Demonstration by the physician of the soundness of these organs is met by argument, at which the hypochondriac is generally an adept.

The suggestion that he devotes undue attention to his own condition is met with indignant denial. Proposals that he should exercise, travel, engage in games or otherwise occupy himself, fall on deaf ears, but he is always ready to try a new drug.

If a medicine is found with whose ingredients the patient is not already familiar, its use is likely to produce a beneficial effect for a few days, ofter which the old complaints return.—George Lincoln Walton, M.D., in January Lippincott's.

What Can the Family Doctor Do for the Inebriate!

Bolton (British Medical Journal) would begin the treatment of alcoholism with a hypodermic dose of apomorphine, even if the patient is delirious. He will quiet down and go to sleep with perhaps antecedent vomiting. The next step is to determine whether the man wants to give up alcohol or simply to get straightened out. Patients cannot be cured against their will, but sometimes new hope may be put into them and they can be shown that a permanent cure is perfectly possible. Combinations of atropine and strychnine may now be used, also hypodermically, two or three times daily. For a stomachic capsicum and cinchona tinctures are recommended, preceded if necessary by a calomel purge. Albuminuria is no contraindication of the foregoing. In fact, the urine often clears up under the treatment. As the general condition improves the frequency of the injections should be lessened. Depression and despair pass away. The nerves are steadied and appetite returns. It is needless to say that such a treatment can be carried out only under strict regular medical supervision. The patient must be warned against overconfidence. If he becomes restless he should at once submit to a brief renewal of treatment. A relapse is not more difficult to treat than any original attack. Old, harmful associations must be broken up and the mind and body both occupied in useful work and healthy recreation.

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The forests of the Southern Applalachian Mountains have been cut so eagerly for the valuable hardwoods they contain that very little virgin timber is left and about 85 per cent of the area is second growth.

The drain on these forests by many industries is immense. The lumbermen are going over the land for the third time. First they took only the prime oak and poplar saw timber. Next they took the oaks that were suited for barrel staves. Now they are after whatever merchantable trees are left, such as birch, chestnut and gum.

Moreover, these forests have been, and still are, logged very wastefully. Nearly three-quarters of the timber cut for ties is wasted. Double or even treble the number of ties now cut could readily be secured from the same area without injury to the forest. By simply taking all the suitable trees, 125 ties could be cut from an acre which now yields only 60, and if all of the wood in the trees were fully utilized 170 additional ties per acre could be secured.

With mine timbers the story is the same. Fully 40 per cent of the timber handled in procuring them is entirely wasted.

Finally, fires are injuring the productiveness of the Appalachian forests by running over the ground and killing young growth.

Circular 118, just published by the Forest Service, discusses the whole question of managing to better advantage the second growth forests of the Appalachian region. This publication can be obtained of the Forester at Washington.

Indican Color Scale.

Appreciating the diagnostic and clinical importance of the presence of an undue proportion of indoxyl-potassium sulphate (indican) in the urine and believing that anything that will be of practical assistance to the physician in the detection of same will be welcomed by the profession at large, the manufacturers of Chologestin have prepared a color scale, graphically illustrating the gradation of color produced in the urine in varying degrees of indicanuria, as the result of the application of the most approved test, which is also fully described. A full and complete interpretation of the reactions accompanies the chart, which is an accurate reproduction, in colors, of actual specimens. The scale is issued on heavy paper, in portfolio form, so that the physician may preserve same for reference. As the edition is limited, the physician who desires a copy should write for same at once to

F. H. STRONG COMPANY,
58 Warren Street, New York.

The Coughs Following Grip.

Dr. John McCarty (Louisville Medical College), in giving his personal experience with this condition, writes as follows: "Ten years ago I had the grip severely and every winter until 1902, my cough was almost intolerable. During January 1902, I procured a supply of Antikamnia & Codeine Tablets and began taking them for my cough, which had distressed so all winter, and as they gave me prompt relief, I continued taking them with good results. Last fall I again ordered a supply of Antikamnia & Codeine Tablets and I have taken them regularly all winter and have coughed but very little. I take one tablet every three or four hours and one on retiring. They not only stop the cough, but make expectoration easy and satisfactory. The best results are obtained by allowing the tablet to dissolve slowly in the mouth before swallowing."

The Facilitating Effect of Emulsification on the Digestion of Fats

has been conclusively demonstrated by a number of investigations in recent years. Volhard in his experiments with gastric lipase, found that fats and oils when places in the human stomach in their plain form, were only slightly hydrolysed, the production of fatty acids amounting to only 1 to 2.7 per cent. On the other hand 78 per cent of acids were formed in one to four hours from finely emulsified fats, the finer the emulsion, the quicker and more complete the hydrolysis. Connstein, Hoyer and Wartenberg have also shown in their experiments with vegetable lipase, that provided fats and oils are completely emulsified, they may be readily hydrolysed by the fatsplitting ferment of castor seed. Lewkowitsch, in his experiments on the hydrolysis of fats by the catalytic action of strong acids, found that hydrolysis became very slow when 75 per cent. of the fat has been split, and that "it may be safely assumed that provided a thorough intermixture as in an emulsion, could be brought about, hydrolysis would proceed very mucy more rapidly."

The foregoing facts are in perfect harmony with the statement of B. Moore that "in whatever form fats may be absorbed from the intestines, it is certain that previous emulsification must greatly assist the digestive fluids by exposing an infinitely greater surface to their action." There can scarcely be any question, therefore as to the increased digestibility and palatability of fats and oils after their thorough emulsification, provided, of course, there has been no admixture of specific remedies to inhabit their intestinal lipolysis or lessen their gen-

This box contains over half a billion disease-destroying germs.

¶In the box pictured are enclosed four dozen capsules, each of which contains, in a preparation called YOGURT, from ten to twenty-five millions of germs. These germs are of a harmless species, and their mission is to drive out of the system disease-producing bacteria, such as are always present in the intestinal tract in cases of *Intestinal Autointoxication*.

¶ YOGURT is our name for a remarkable lactic, acid-forming ferment discovered in Oriental milk preparations by Masson of Geneva and later investigated by Metchnikoff, of the Pasteur Institute, and other European medical authorities. It has proven a positive remedy for Intestinal Autointoxication, and is therefore invaluable in a large number of chronic diseases, particular many cases of arteriosclerosis, Bright's disease, skin maladies, chronic rheumatism, rheumatoid arthritis and chronic biliousness. It is of service in all cases in which stools are putrid, the tongue coated, and the breath bad. It is of great value in typhoid fever and other febrile disorders; also in the intestinal disorders of children, rickets, emaciation and malnutrition.

¶ Hitherto this remedy has not been obtainable in this country. It may now be secured, freshly prepared and of superior quality.

¶ We have succeeded in preparing this ferment in concentrated form so that it may be administered in capsules.

¶ Packages containing four dozen capsules, each post-paid, $.100.

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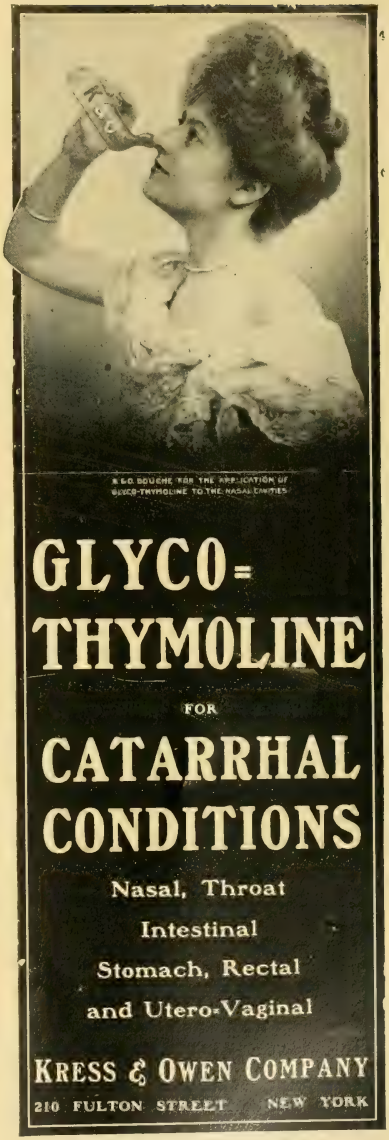

IMITATION OR SUBSTITUTION.

A physician in speaking of Glyco-Thymoline imitations remarked that they reminded him of Oleomargerine—"which might be used when it was impossible to get better."

"Imitations are at best poor substitutes and I never use them, I want the results that invariably follow the use of Glyco-Thymoline—genuine," Sole Agents for Great Britain.

Thos, Christy & Company, 10 and 12 Old Swan Lane, London, E,CEngland,

eral usefulness. Probably the chief factor in the unquestionable efficacy of Hydroleine, the well-known emulsion of Cod Liver Oil is the entire absence of medicaments usually associated with the ordinary commercial emulsions. It is simply pure Lofotin Cod Liver Oil with the addition of such agents only as are absolutely necessary to emulsify the oil and render it palatable and stable. It can, therefore be prescribed in all cases in which Cod Liver Oil is indicated, whereas emulsions containing specific medicaments are limited to particular diseases.

Ten Medical Commandments.

1. Thou shalt not say evil of thy colleagues nor hurt their business.
2. Thou shalt treat thy patients, and not experiment upon them.
3. Thou shalt keep clean thy nails and use much soap and water.
4. Thou shalt be honest to thy patients and not overcharge them.
5. Thou shalt not call every bellyache a case of appendicitis.
6. Thou shalt not worship in saloons nor seek thy friends there.
7. Thou shalt not find bacteria everywhere and in anything.
8. Thou shalt be antiseptic in thy conduct and aseptic in thy practic.—Amer. Jour. of Dermotology.

The Late Lord Kelvin's Humor.

According to Professor Munro, the late Lord Kelvin's sense of humor was shown some years ago on the occasion of a visit by Joule to his workshop. Noticing a large quantity of piano wire lying about, Joule asked what it was for. "Sounding" was the reply. "What note?" asked Joule, in an absent minded way. "O, the deep C," he was told.—N. Y. Med. Jour.

Pre-Medical Requirements.

There is a strong movement on foot amongst the better class of medical colleges to require of all prospective students, in addition to their high school diplomas, a year's training in physics, chemistry and biology. Some fifty of the colleges have signified their determination to require this preliminary training on or before the year 1910.

If the signs are rightly read, it will not be a great while thereafter when State Boards will be requiring such a training from all candidates for license. I believe this is a move in the right direction and one that can not but redound to the benefit of those schools which anticipate this requirement. It behooves them, the various medical faculties, to consider the matter seriously and get in line.—Milwaukee Medical Review.

Dr. W. L. Crump, of Salisbury, N. C., was painfully injured in a runaway accident on the night of January 11th, 1908. Dr. Crump suffered a dislocation of the shoulder joint which has disabled him for some time.

The late General Shafter used to enjoy telling how, during the Civil War, several wounded officers and a few privates were going up the valley of Virginia, when a rain came on, forcing all hands to take refuge all night in a school house.

It chanced that during the night a skunk had found its way under the floor, and by and by had announced its presence after its well-known effective manner.

The officers all waked up, but, being gentlemen, and each supposing that the others were still asleep, they kept silent. At last one of the privates, a German, could restrain himself no longer.

"Mein Gott!" he exclaimed. "Dis is awful! Dey shleeps and I vakes, und I haf got to shmell it all!"—The Medical Standard.

The International Congress on Tuberculosis.

Progress along all lines connected with the International Congress on Tuberculosis, which is to take place in Washington from September 21 to October 12, 1908, was shown by the reports presented at a meeting of the committee of arrangements, held in New York, at the Associated Charities Building, Monday evening, October 28. Dr. Lawrence F. Flick, of Philadelphia, chairman of the committee, presided, and the other members present were Dr. Joseph Walsh, Philadelphia, secretary; Dr. John S. Fulton, Washington, secretary general; Mr. William H. Baldwin, Washington; Dr. Hermann M. Biggs, New York; Dr. Frank Billings, Chicago; Mr. Edward T. Devine, New York; Mr. Livingston Farrand, New York; Dr. J. C. Greenway, Greenwich, Conn.; Dr. Charles J Hatfield, Philadelphia; Dr. Abraham Jacobi, Dr. Alfred Meyer, Mrs. James E. Newcomb, New York; General George M. Sternberg, Washington, and Dr. William H. Welch, Baltimore.

Up to date the governors of twenty-three States have lent official auspices to the congress. This not only insures official representation so far as that many States are concerned, but it insures an active organization in each of these States that will be interested in the Congress.

The States in which this action has been taken so far are California, Utah, Montana, North Dakota, Minnesota, Wisconsin, Illinois, Iowa, Indiana, Michigan, Ohio, Ken-

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The nurses are provided from the Saint Luke's Hospital Training School for Nurses.

The terms are moderate varying from $12,50 to $20,00 per, week for board and general nursing according to the room occupied, For Booklet and further information Address. **J. H. MARSH, M.D.**

tucky, Kansas, Tennessee, South Carolina, North Carolina, Maryland, New York, Massachusetts, Vermont, Maine, West Virginia and Missouri.

Active preparations are also under way in other countries. The National Committees for France, Germany, Sweden, Austria, Holland, Greece, Bulgaria, Cuba, Venezuela, Brazil and Costa Rica have organized and have forwarded their membership lists to the Secretary General. The French committee has a membership of over three hundred and includes men of prominence in public life as well as in the medical profession. The officers of this committee are president, Dr. Louis Landouzy of the medical faculty of the University of Paris; vice-presidents,—Dr. Faisans of the University of Paris, Prof. Vallee the eminent veterinarian, of Alfort, Dr. F. Bezancon of the University of Paris, and Dr. Le Gendre; secretaries,—Dr. Triboulet, Secretary-General of the last International Congress which was held in Paris three years ago, Dr. Nobecourt, Dr. Leon Bernard, Dr. Dehan, and Dr. Georges Bourgeois; treasurer, M. Masson.

The Secretary of the German Committee Dr. Johannes Nietner, was Secretary-General of the recent International Congress on Hygiene and Demography. Other members of the Committee are Dr. Gotthold Pannwitz, Secretary-General of the International Tuberculosis Association, Dr. B. Frankel, Dr. Ernst von Leyden, Professor emeritus of the University of Berlin, and Dr. Johannes Orth, Professor of Pathology in the University of Berlin.

Dr. N. P. Tenderloo, of Leyden, another well known pathologist is a member of the Committee for Holland. Dr. P. K. Pell, of the University of Amsterdam, is chairman of that committee, and Dr. W. J. von Gorcum of The Hague is the secretary.

Dr. A. Herrera Vegas, the Chairman of the Venezuelan committee is president of the Venezuelan Anti-tuberculosis League, and a member of the National Academy of Medicine at Catacas. Dr. P. Acosta Ortiz, the vice-president, is a director of the hospital at Vargas, and Dr. L. Razetti another member of the committee is vice-rector of the University of Venezuela, and permanent secretary of the National Academy of Medicine. All of the members of Brazilian committee are actively identified with the anti-tuberculosis movement in that country. The Committee includes Dr. J. J. Azevedo Lima, of Rio Janeiro, President of the Brazilian Anti-tuberculosis League; Dr. Oswaldo Cruz, Director-General of the Department of Public Health; Dr. J. J. Seabra and Dr. Cypriano de Freitas, of Rio de Janeiro.

The president of the Cuban Committee is Dr. Guiteras formerly professor of pathology in the University of Pennsylvania and now at the University of Havana. Dr. J. L. Jacobsen the vice-president is present of the Cuban Antituberculosis League. The secretary is Dr. M. G. Lebredo of Havana. Two well known members of this committee are Dr. Aristides Agramonte, the last surviving member of the famous yellow fever commission of the United States Army, and Dr. Carlos J. Finlay who was recently awarded the Mary McKinsley medal by the Liverpool Association for the Study of Tropical Diseases.

Dr. B. Patrikios, the Chairman for the committee for Greece is Secretary of the Department of Health of Greece, and Secretary-General of the Greek Red Cross Society. Dr. Aristote Kouzis, the Secretary is a professor of the University of Athens. Dr. Constant Savas, a member of the Committee is Professor of Hygiene in the University of Athens, and is physician to the King of Greece; Dr. P. Manoussos is the principal medical director of the military hospital at Athens; Dr. Kalliontzis is professor of surgery and Dr. Pierre J. Rondopoulo is professor of pathology at the University of Athens.

The Hon. Otto von Printzkold, the Chairman of the Swedish Committee, is the first chamberlain of the Swedish court. The secretary, Dr. Bertil Buhre, is the president of the great Swedish Anti-tuberculosis League, the largest volunteer association of the kind in existence.

The Costa Rican Committee has named Dr. Louis P. Jiminez chairman, and Dr. Teodoro Picado, of San Jose, secretary. Other members are Dr. Teodoro Prestinary, Dr. Benjamin Hernandez and Dr. Marcos Zunega, all of San Jose.

Three chairmen have been named by the Austrian Committee. They are Prof. Leopold v. Schrotter, of the Medical Faculty of the University of Vienna; Dr. Weichselbaum and Dr. Richard Paltauf, of the Department of pathology of the University of Vienna. The secretaries are Dr. H. v. Schrotter, Dr. L. Teleky and Dr. J. D. Bartel.

Dr. M. Rousseff, director of the Department of Health of Sophia, is president of the Bulgarian committee; Dr. Ivan Ogguianoff, secretary of the Superior Board of Health at Sophia, is secretary, and the members include Dr. Georghi Zolotovitch, Dr. Ivan Theororoff, director of the Sanatorium for Tuberculosis at Trojan, and Dr. S. A. Valcovitch.

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NOTICE—CAUTION.

The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these, ***finds that no two of them are identical,*** and that all of them differ from the original in composition, in freedom from acid reaction, in susceptability to the effects of oxygen when exposed to light or heat, ***in the property of retaining the strychnine in solution,*** and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. ***Fellows.***"

As a further precaution, it is advisable that the syrup should be ordered in the original bottles; the distinguishing marks which the bottles (and the wrappers surrounding them) bear, can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

The Telfair Sanitarium,
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For the treatment of Alcoholism and Drug addictions. Morphine, Cocaine, etc.

The treatment is based on scientific principles, and thoroughly and permanently removes, without suffering or inconvenience, all desire for Drugs or stimulants, restoring the patient to a normal, physical and mental condition. The Sanitarium is conducted on modern lines' and receives the endorsement and support of the profession.

FOR PARTICULARS AND TERMS ADDRESS,
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Grippe, Pneumonia and Their Prophylaxis

Samuel G. Tracy, M.D., New York, states (*N. Y. Times*, Jan. 3, 1908) that among the most important of the prophylactic measures to be adopted during the prevalence of grippe and pneumonia is the regular and careful cleansing of mouth, teeth, tonsils and nose.

For purely prophylactic purposes
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has been used by the profession with entire satisfaction in the following particulars:

For Mouth and Teeth—As a Wash
For the Tonsils—As a Gargle
For the Nose—As a Spray

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Fence posts of many kinds of cheap woods which ordinarily would soon decay if set in the ground can be made to last for twenty years by a simple treatment with creosote. Most of the so-called "inferior" woods are well adapted to the treatment, and this is especially true of cottonwood, aspen, willow, sycamore, low-grade pines, and some of the gums. When properly treated, these woods outlast untreated cedar and oak, which are becoming too scarce and too much in demand for other uses to allow of their meeting the demand for fence posts.

Impregnation with creosote has been greatly cheapened by the introduction of the "open tank," which can be installed at a cost of from $30 to $45, or much less if an old boiler is used. A tank with a bottom 12 square feet in area will suffice for treating 40 to 50 6-inch posts a day, or double this number when two runs per day can be made. The absorption of creosote per post is about as follows: Eucalyptus, one-tenth gallon; willow, two-tenths gallon; sassafras, ash, hickory, red oak, water oak, elm, and maple, four-tenths gallon; Douglas fir, quaking aspen, and black walnut, six-tenths gallon; sycamore, cottonwood, and lodgepole pine, seven-tenths gallon. The price of creosote is about 10 cents per gallon in the East and Middle West, 16 cents per gallon on the Pacific coast, and 27 cents per gallon in the Rocky Mountain States. The cost of treating a post will therefore vary from 4 to 15 cents. Properly treated, it should give service for at least twenty years.

Experiments of the Forest Service show that with preservative treatment the durability of lodgepole pine in Idaho is increased sixteen years. The cost of creosote is there relatively high, yet by treating posts there is a saving, with interest at 6 per cent. of 2 cents per post yearly. More important than the saving, however, is the fact that through preservative treatment other woods are fitted to take the place of cedar, of which the supply is rapidly becoming exhausted. A detailed description of experiments in preserving fence posts, together with practical suggestions for treating them on a commercial scale, are contained in Circular 117 of the Forest Service. This publication can be obtained upon application to the Forester at Washington.

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Seventy-five members of the profession, representing all the cities and towns in Spokane county, were entertained at a banquet, by the Spokane County Medical Society in the Hall of the Doges at Davenports restaurant, Spokane, Washington, on the evening of Jan. 8th, in honor of the Washington state board of medical examiners at the close of the semi-annual examination of applicants for licenses to practice in the Evergreen state. Dr. N. Fred Essig of Spokane, was toastmaster, and these responses were made:

Dr. D. Mason, "Early Days of the Profession;" Dr. W. F. Morrison, "The Social Side of a Physician's Life;" Dr. Harry S. Martin, "The Physician as a Business Man;" Dr. E. B. Nelson, "The Country Doctor;" Dr. George K. McDowell, "The Physician Abroad;" Dr. J. G. Cunningham, "Professional Responsibility;" Dr. N. M. Baker, "Duties of a Physician in Preventive Medicine;" Dr. E. D. Olmsted, "The Physician in Politics;" Dr. M. A. W. Shockley, surgeon at Fort Wright military reservation, "The Army;" Dr. T. L. Catterson, "Our Society;" Dr. C. M. Doland, "Our Younger Members;" Dr. C. W. Sharpless, "Our Medical Laws," Dr. W. Johnson, "Washington State Medical Association," and Dr. W. J. Munley, "Our Wives and Sweethearts."

The committee on arrangements was composed of Dr. T. L. Catterson, Dr. Wilbur W. Mackenzie and Dr. R. I. Newell.

Training in Medical Organization.

The students of the University of Pennsylvania Medical School have formed an organization the purpose of which is to acquaint the undergraduates with the workings of the American Medical Association, after which it is very closely modeled. The various student societies take the place of the State organizations and elect members to a House of Delegates which transacts all the business of the association. An annual meeting is held at which papers are read by chosen members thus encouraging original research and a scientific spirit. The organization is named The Undergraduate Medical Association of the University of Pennsylvania and already has over two hundred and fifty members.

The Pernicious Tendencies of Rampant Organization.

In a moment of impulse St. Paul questioned the veracity of all men. Had his observation extended to their judgment, there would have been little or no occasion for his later self-condemnation, for—since Adam made the first great mistake—mankind has ever been led astray by the seductive voice of the promoter.

Especially is true with reference to the medical fraternity, and the United States is just now witnessing the most ambitious and dangerous movement tending to the exploitation of a humanitarian profession

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that this or any other country has ever seen.

Not many years ago a few medical men —shrewd and calculating, with a proselytized practitioner as the dominant factor— laid the plans for a complete re-organization of the American Medical Association. With consummate skill of a certain kind this re-organization was accomplished and, without realizing it, the medical men of the country have been brought to give to these organizers absolute power of dictation concerning all questions pertaining to the practice of medicine. No matter how rabid, radical, or nihilistic may be the views of these erstwhile leaders, they stand forth as accepted medical doctrine solely by virtue of their prefected system of organized control and promotion.

The result of this whole plan and process of organization has been to eliminate the individual member as a factor in the direction of the policies and business of the Association. Never was this so evident as at the recent June meeting of the A. M. A. at Atlantic City. Offices were bargained for and traded; combinations were effected, and numerous deals were completed.

But of the 3,700 members present, out of a total Association membership not exceeding 28,000, less than 100 members were aware of the deals afoot, and less than 20 engineered them.

As was said by one prominent physician —a member of the Association for years, and known as one of the country's leading sanitarians—"This present method of organization is all wrong. We are all outsiders. I like to come to the meetings and, if not quite a factor, at least to know what is going on and who are the leading candidates for office. I want a chance to condemn or commend the policies that my annual fees help to support and propagate. In plain language, I want to be something

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more than a mere subscriber to the Journal." These sentiments were not confined to one man. They were repeated again and again by members from coast to coast.

In opposition to this sort of sentiment the argument has been advanced that the business of the Association is expedited; that a greater volume can be transacted, and that the elimination of general discussion gives the members more opportunity for attending to scientific work!

Ingenious, 'tis true; but there are countless members who feel that it is quite as important to consider, debate and help to determine the great questions of medical economics, legislation, education, etc., as it is to listen to the reading and share in the perfunctory discussion of a number of dogmatic, stereotyped papers which in any case, are bound to appear in the Journal in due course.

The plain fact is that the members of the American Medical Association have been cleverly "trade-unionized." Already the boycott has been brought into action—as some of the insurance companies, medical publishers and pharmaceutical manufacturers can testify—and the very tangible evils of misdirected paternalism are becoming all too evident. Medicine, alas, is being converted into a trade, though an attempt is snugly made to hide this fact by platitudes and protestations, the spirit of crafty commercialism is certainly being fostered. Already the cachet of the Red Cross Button —like the union members' card—is being pushed for all it is worth, and the fateful day approaches when the doctor who does not wear this "badge of business brotherhood" will not be allowed "on the job" with the one who does!

This means the death of aspiration and ambition, the stultifying of independent thought, the obliteration of individuality and the loss forever of that originality and personal initiative on which scientific progress always has depended and so must ever continue to do.

Where and what is to be the end of the whole movement?

Unless a change in the present plan of centralization of control soon takes place, the unavoidable result will be a complete loss of professional prestige, with a consequent decrease in medical efficiency and an inevitable decline of medical incomes. The physician will practice his "trade" automatically—bound not only by fixed hours of service and fixed fees, but by fixed methods of treatment and practice!

The public, alive to the fallacious character and pernicious possibilities of such a system, will have none of it. Intelligent laymen know too well that the human body is a constantly varying organism—that disease is subject to too many phases—to trust their cases to automatic, routine methods of treatment. Instead, they will seek the medical practitioner who has perfected himself not only in naming disease, but in the art of interpreting it—the medical man who possesses the genius of treatment, no matter what the employs, or how. They want the man who can and does think for himself about their particular cases at the time they seek and most need his advice.

As this character can hardly fit the loyal adherent and follower of the present A. M. A. "Sanhedrim," his place and income cannot fail to shrink in direct ratio to the increase of his independent colleague's success. Pressed, therefore, by the stress of material needs, many will be obliged to renounce their allegiance to the "Medical Union Idea," and as renunciation of a belief is often apt to lead to extremes in the opposite direction, an increase in charlatanry and its evils may be confidently expected to follow.

How unfortunate is all this! Why will not the earnest, honestly-ambitious members of the A. M. A. see the rocks upon which their whole organization is being carried? How can they stand by and see a splendid craft wrecked by men who are conspicuous for little or nothing that truly tends to elevate the legitimate practice of medicine? It is a pitiable reflection upon the medical men of America who have always guarded their professional standing, and have correspondingly prized their integrity as physicians, that they now allow their futures and reputations to be thus dominated by men who, unlike Caesar's wife, are not above suspicion—"machine" votes of confidence to the contrary notwithstanding, and as will be recognized with regret in the Babylonic days of disaster by which the future of the Association cannot fail to be marked under its present regime.

It is high time that definite movement was afoot to avert the dangers that threaten. One has only to talk with physicians the country over, and to read the non-subsidized representatives of the medical press of the United States, to learn the growing sentiment against "boss rule" in professional affairs. In the interests of progressive medicine and the worthy members of a splendid profession, it is to be hoped that the day may not be far removed when what has been described by others as "the Chicago Octopus"—and by ourselves as "the 'Machine' control of the A. M. A."—shall be laid out "on the sands of time," its power gone forever and awaiting only the waves of oblivion to sweep it out of the ken

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Prepared only by

Charles Marchand

Chemist and Graduate of the "Ecole Centrale des Arts et Manufactures de Paris" (France).

57-59 Prince Street, NEW YORK.

of future generations.—Ed. Amer. Med. Journalist.

Erysipelas-Pneumonia.

June 5, 1905, I was called to attend Mr. K. I found him suffering with a very aggravated case of facial erysipelas. I applied my usual treatment of carbolized salve locally, and gave the proper internal treatment, but when I saw the case again in twenty-four hours I found symptoms no better. I thought I would try Antiphlogistine. After applying the salve to face, I spread Antiphlogistine on a cloth making a mask that would cover the entire face, directing nurse to change when it dried out.

Next day I found patient much improved. He said "that clay relieved all the burning five minutes after you applied it." I now make it a rule to use Antiphlogistine in treating erysipelas, and I am sure my patients get along faster than they did when treated without it.

I also use Antiphlogistine in pneumonia, and all cases of inflammation of the lung or pleura. Indeed I would hate to have to treat this kind of cases with Antiphlogistine. I will report on one case of an infant where I believe this remedy saved the patient's life.

January 3, 1906, Infant, age 18 months.

IODIDE OF IRON

For many years the great therapeutic value of iodide of iron has been recognized, but the fact that its efficiency is absolutely dependent on its purity and stability has never been sufficiently appreciated. The advantages of purity and unchanging quality, however, are conclusively demonstrated by

Blancard's Pills

and the physician who seeks the specific alterative and reconstructive effect of a dependable iron iodide will find embodied in this preparation the highest pharmaceutical skill, reliability, unvarying stability and therapeutic worth.

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Two days after initial fever, temp. 104°, resp. 48, pulse 120; tongue coated, could hardly get breath, expiratory moans, crepitent rales. Gave internal treatment, and covered both back and front of chest with Antiphlogistine. In twenty-four hours the breathing was much better and temperature lower. On my third visit I found all the symptoms so improved that I dismissed the case.

W. E. SROFE, M. D.,
Martinsville, Ohio.

Sanitation and Good Roads in Cuba.

Cuba is moving forward politically, economically, and industrially. There is no doubt of that. Under American direction and the stimulus of American assistance the work of improvement has progressed solidly. The idea of a $5,000,000 wagon road, conceived by General Wood has been already applied, and the great road is steadily progressing toward completion. This thoroughfare will open up a great artery of wagon communication by macadamized road, good in any wheather, from one end of the island to the other. While from a military point of view this is a most highly important work, assuring the Havana government a military base of operations within forty miles of any point of the island and always accessible by wagon train, its chief value will be to open up access to market for many thousands of square miles of fertile land at present of no agricultural value, because their products cannot be profitably carried to market. Of prime importance has been the nationalization of sanitation in Cuba. This has already resulted in actually stamping out the yellow-fever pest and in greatly reducing all the other "mosquito diseases," a condition once before achieved during American intervention, but allowed to lapse. Making sanitation a national matter has also provided the machinery, funds, and supervision necessary to render this improved condition permanent. Hereafter the health of the Cuban people will be a matter of constant care on the part of the central government of the island.—From "The Progress of the World," in the American Review of Reviews for February.

The Meaning of Substitution to the Physician.

The substitutor prescribes for your patient without regard to your reputation or the welfare of your patient, assuming that you do not know your business.

Why does he do it? For illegitimate profit.

What are you going to do about it?

The substitutor—

You lose your patient and you don't know why.

The substitutor—

The man who sells your patient a gold brick. Your patient believes you did it.

The name of the physician who permits substitution on his prescription.—E. Z. Mark, M. D.

The substitutor—

The man without originality or initiative. He wants to degrade you. Will you permit it?

The substitutor—

The man who sacrifices you and your patient to satisfy his avarice.

What are you going to do about it?

The substitutor—

Ananias was an angel compared to him. The first stole money and then lied about it. Penalty—Death. The substitutor steals your patient's money, his chance for life and your reputation as well. Penalty—Increased bank account.—Ft. Wayne Med. Jour. Mag.

Respiratory Tract: Affections, Symptoms and Treatment.

The average physician is frequently vexed in finding a condition which resists his best efforts to bring about a cure. This holds good in almost every disease at some time or other, but particularly in affections of the respiratory tract, where there may be a great variety of symptoms in several cases of the same disease.

Almost every physician has some favorite prescription for coughs, bronchitis, laryngitis, etc., which he uses until suddenly it seems to lose its efficacy—why, no one knows. Then another remedy takes its place until it, too, fails to give the desired result. It is rarely that one finds a cough remedy which will be consistently good in the majority of cases. Theoretically there appears to be a well-founded objection to the use of cough syrups in general, but nevertheless, there are times when nothing else gives satisfaction; therefore, the physician pins his faith to that remedy from which he and his patients derive the most good. It is not always easy to find such a remedy, but when it is once found, it is equally difficult to dispense with, and often the physician is almost compelled to resort to a routine treatment. In such cases, of course, he wants the best.

There are constantly being placed on the market new formulas for affections of the air passages. Some of these formulas are of undoubted benefit in some cases, but usually it will be found that the results are far from satisfactory. Many of them cannot be taken when there is any gastric complication, as is sometimes the case, because of consequent nausea and vomiting. Others seem almost invariably to act as cardiac

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Philadelphia, Pa., March 28th, 1907.

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Proteid Matter	73.54
Insoluble Matter	9.43
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Ash	4.96
	99.50
Loss	.50

Submitting the inclosed analysis I take pleasure in stating that basing it on the protein content this is the most wonderful exponent of the modern nutrients extant. It is practically five times the meat value as a food, and as such will command the attention of every physiologist and hygienist interested in food products.

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23 William St., New York, October 16, 1907.

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Contains in 100 parts by weight:

Nitrogenous matter calculated as Albumen	12.02
Fibrin, digestible	70.31
" indigestible	.90
Extractive matter free from Nitrogen	2.18
Fat	7.00
Meat Phosphates	.26
Chlorid of Sodium	.94
Water, hygroscopic	6.34

No foreign preservatives are present. Especially tested for Boric Acid, Salicylic, Benzoic, Fluorine, Sulfurous Acid and Formaline.

From the large quantity of soluble Albumens and digestible Fibrin it is evident that this preparation in connection with the fat therein furnishes an excellent nutritive, easy of digestion. H. ENDEMANN.

A sample with literature will be mailed free to Doctors mentioning this Journal.

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Chemist and Graduate of the Ecole Centrale des Arts et Manufactures de Paris (France).

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depressants and are highly objectionable for that reason.

In phthisical patients the well known lack of appetite and intolerance of various foods render it imperative to give remedies which will not in any way interfere with the digestive functions, while at the same time controlling or alleviating the cough and other distressing conditions.

Some time ago my attention was called to a preparation composed of a solution of heroin in glycerine, combined with expectorants, called Glyco-Heroin (Smith.) Each teaspoonful of this preparation contains one-sixteenth grain of heroin by accurate dosage. It is of agreeable flavor, therefore easy to administer to children, for whom the dose can be easily reduced with any liquid, or by actual measurement. It possesses many advantages not shown by any other preparation I have used, and has none of their disagreeable features.

In citing some of the cases treated with this remedy I shall not go into a minute description of any case, but briefly state the conditions which existed and the results obtained, which were uniformly good. Case 1. S. B., aged 16. Caught a severe cold while traveling. This developed into an unusually severe attack of bronchitis with mucous rales, pain cough and some slight fever. Prescribed Glyco-Heroin (Smith) one teaspoonful every two hours, decreased to every three hours. After a few doses were taken there was a decided improvement, the respirations were slower and deeper, the expectoration freer and the temperature normal. In a few days the patient was practically well and able to return to school. No medicine except Glyco-Heroin (Smith) was given and the results from its use were excellent.

Case 2. W. L., aged 31. Acute bronchitis. Painful cough, with difficult expectoration, particularly when in a reclining posture. Glyco-Heroin (Smith) in teaspoonful doses every three hours gave speedy relief and a cure was effected in a few days.

Case. 3. B. E., aged 26. Severe bronchitis accompanying an attack of influenza. Various remedies were tried in this case, with negative results, until Glyco-Heroin (Smith) was given in teaspoonful doses every three hours. In a short time decided relief was obtained and the cough stopped permanently.

Case, 4. R. L., aged 6. Capillary bronchitis with pains over chest, cough and difficult expectoration. Glyco-Heroin (Smith) administered 15 drops every three hours. After taking a few doses the condition was much improved, and a speedy return to perfect health followed.

Case, 5. W. H., aged 5. Whooping cough. Spasmodic paroxysms of coughing, sometimes being so severe as to cause vomiting. Tenacious mucus was present, requiring great expulsive effect to loosen it. There was little fever, but the patient was much prostrated and weakened by the cough. Glyco-Heroine (Smith) was given in 10 drop doses every two hours with good results. This was combined with hygienic treatment, the patient being given as much of fresh air as possible. In a few days the condition was much ameliorated, the cough under fair control, expectoration was freer and easier to raise, and convalescence uneventful. The case was discharged cured and there were no unpleasant sequelae, the patient at present being in perfect health.

DR. ARTHUR B. SMITH,
Springfield, O.

A Convenient and Rational Treatment for all Narcotic Drug Addictions.

A more thorough knowledge of the formulae, methods employed, and all other matter pretaining to the successful treatment of drug addictions, can be gained by writing the Combs Chemical Co., St. Louis, Mo., for free sample vial, also literature and clinical reports. See advertisement elsewhere in this Journal.

Hyos-Sco-Phine Tablets are Sold at Reasonable Prices.

Although it has necessarily required time, money, and experience to perfect the formulae and to work out the present nicety of the plan of treatment, yet the manufacturers of Hyos-Sco-Phine Tablets have not placed the preparation on the market at prohibitive figures. nor have they offered it to the laity, but instead as can be seen by an examination of their methods, they have endeavored in every way to put out their preparation in such shape as to enable the physician to prescribe it as an original prescription.

As to the selling price of the preparation we will take as an example a six grain case of Morphine Addiction. A course of Hyos-Sco-Phine Tablets for a six grain case is sold at $5.00 This course of treatment covers a period of forty days, a period sufficient to make the withdrawal of the morphine very gradual, while the treatment, which is a tonic in its nature, carries on a building up process rendering recovery comparatively easy in the majority of cases. Morphine sufficient to support a six grain case for forty days at real price would cost nearly four dollars, consequently, as can be readily seen, the manufacturers are selling Hyos-Sco-Phine Tablets to the medical profession at a figure which in the long run does not amount to much more than the patient's morphine bill, and by relieving the patient, the cost of morphine is entirely eliminated.

Physicians should also bear in mind that every case of Syos-Sco-Phine Tablets is sold under a positive guarantee that the full amount paid will be promptly refunded if the tablets are not all that is claimed for them.

Although the Combs Chemical Company has sold several thousands courses of the Hyso-Sco-Phine Tablets, it has never been called upon to refund a cent, except in three instances where the patients possessed an idiosyncrasy for the tablets, and of course the purchase money was promptly refunded without question.

The Relation of Streptococcus Erythema to Scarlet Fever.

Besnier (Berlin. klin. Woch.,) in his monograph on the pathogenesis of erythemas, distinguishes three forms: (1) Scarlatiniform, (2) scarlatinoid and (3) scarlatinous. Under scarlatiniform he describes those erythemas which are not specific in character and not contagious. This group includes the toxicoderms, which are due to various drugs such as quinin, mercury, antipyrin, belladonna, etc. They may be accompanied by fever and some desquamation, but the throat always remains unaffected. Under the second group. He describes those erythemas which are infectious but not contagious. They are usually complications of other infectious diseases, as septicopyemia, and are often accompanied by affection of the mucous membranes of the throat, respiratory and digestive tracts. Desquamation usually occurs early. Some authors, as Baginsky, consider scarlet fever as due to an infection with streptococci, while others attribute its complications only to that organism.

In a series of injections with the author's streptococcus vaccine by various observers in Russia, an erythema resembling closely that of scarlet was observed in a variable proportion of the cases. This "vaccination-scarlet" differed from the ordinary scarlet by the following characteristics: (1) The rise of temperature, exanthema, angina and vomiting appeared soon after the injection, and the disease reached its acme at the end of the first two days. (2) The universal erythema was fainter, and the desquamation, if present at all, was furfuraceous rather than lamellar. (3) The kidneys were rarely affected. (4) The angina was less marked and membrane-formation was rarely present. (5) The temperature rarely rose above 39° C. (6) Absence of epidemics preceding or following the occurrence of the disease.

As a result of these series of injections,

Antiphlogistine

[Inflammation's Antidote]

Pneumonia

Apply over the thoracic walls, front, sides and back, and cover with a cotton-lined cheesecloth jacket, as shown in the illustration.

Bronchitis

Apply over and beyond the sterno clavicular region. If a dressing is put on when symptoms of bronchial irritation first appear, a serious development may be prevented.

Pleurisy

Apply over and well beyond the boundaries of the inflammation.

In all cases Antiphlogistine must be applied at least ¼ inch thick, as hot as the patient can bear comfortably and be covered with a plentiful supply of absorbent cotton and a bandage.

THE DENVER CHEMICAL MFG. CO.

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the author comes to the following conclusions: (1) The streptococcus can produce erythemas resembling those occurring in scarlet fever. (2) Vaccines prepared from streptococci which are present in the throat of scarlet fever patients likewise produce similar erythemas. (3) The punctiform erythemas of scarlet fever, scarlatinoid, and those produced by streptococcus vaccines are identical in nature. (4) These facts favor the assumption that the streptococcus is the specific agent of scarlet fever, and (5) furnish the scientific basis for the use of Moser's serum and the author's streptococcus vaccine.

Why Must Appendix be Removed in Gynecological Operations?

Pankow (Munch. med. Woch.,) discusses the necessity of a routine removal of the appendix whenever the abdomen is opened for a gynecological operation. The author has made systematic histological examination of the appendices removed from patients operated upon for gynecological lesions in 150 cases. He finds that the appendix is affected more often in the female than in the male, and that lesions occur in 60 per cent. of gynecological cases. Appendicitis plays a much wider role in gynecological cases than has been supposed. It is frequently the cause of closure of the tube and resulting sterility. Many cases of pain in the right side referred to the ovary result from appendicitis. The inflammation of the appendix is frequently unobserved by the patient, yet it leaves its marks behind in adhesions, and chronic inflammatory conditions. Hence the author believes that when we have opened the abdomen for another operation we should at the same time remove the appendix.

Indications for, and Results of, Bier's Method of Treatment.

Duclaux (Le Prog. Med.,) says that this treatment is of two kinds, giving active hyperemia produced by local applications of heat, and passive, or venous hyperemia, produced by the withdrawal of air in a closed apparatus, or by enclosing the limb in a rubber band, that should not be too tight or kept on too long. It should not produce pain, anesthesia, or coldness of the limb, but simple, moderate edema. The band remains in place from three-quarters of an hour to an hour for acute affections and 20 to 22 hours for the chronic ones. The edema results from dilatation of the veins, and it is claimed that it has bactericidal properties, is antitoxic, and improves the nutrition of the tissues. According to Bier it is the best treatment, used entirely alone, for tuberculosis of the joints. An early mobilization of the joint is permitted, and normal motion soon returns. A speculum has been devised by Ferguson in which air can be exhausted, and thus good results are claimed in metritis and dysmenorrhea. These good results are not confirmed by all observers, and in France it is believed that some of them are still to be proven. There have been produced sensory complications, vascular troubles, chronic edemas, and consecutive injections, such as lymphangitis, erysipelas, adenitis, and fistulæ from tubercular processes that had been closed heretofore. At the same time it is of great value in gonorrheal arthritis, in hydrarthrosis, and some articular inflammatory processes. Great prudence is necessary in the use of the method and it is of most value in early cases.

Scopolamin and Spinal Anesthesia in Gynecological Operations.

Klein (Zent. f. Gyn.,) says that most of the statistics of results of anesthesia take no account of the deaths that occur from two to six days after the narcosis, from shock, from pneumonia, and from ether bronchitis. Chloroform acts on a degenerated heart muscle as well as on the muscles of the general system and the central nervous system. In anemic and cachectic persons the sleep obtained by scopolamin is most useful for operations of moderate intensity. Also in cases where ether narcosis is contraindicated scopolamin narcosis is of value to permit operations that could not otherwise be done at all. Scopolamin and spinal anesthesia are indicated in combination with chloroform or ether in some cases where less of the anesthetic can be given through their aid. Spinal anesthesia alone may be used in operations on the perineum, vagina, and vulva, as well as in celiotomy when no great pulling or tearing of the organs will be necessary, or there are no tumors of uterus or adnexa. In nervous patients spinal anesthesia combined with scopolamin is most useful for all slight operations where it is not desirable for the patient to be at all conscious of her surroundings. When there is necessary pulling on the uterus or adnexa or total vaginal extirpation of either or these organs, and in abdominal operations with strongly adherent adnexa inhalation narcosis becomes necessary, but by the use of scopolamin combined with spinal anesthesia very little of the general anesthetic need be given. In the cases treated by the author no bad effects followed the use of these combinations.

In making rectal examinations, if no finger cot is at hand, the finger may be protected by enveloping it in a piece of

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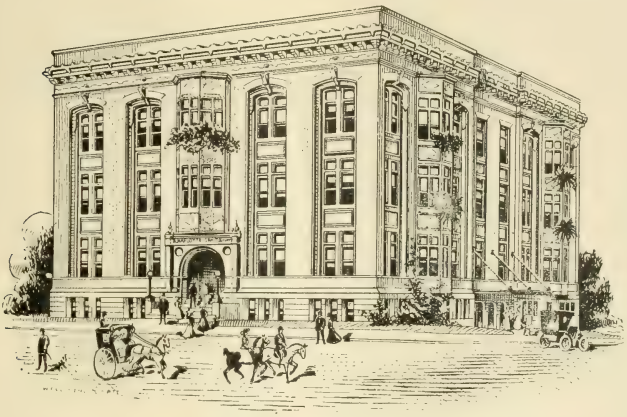

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The Tri-State Medical Association of the Carolinas and Virginia (only members of State Societies eligible). Next Annual Meeting: Charlotte, N. C. Date of meeting: February 18-19, 1908. President, Dr. Stuart McGuire, Richmond, Va.; Secretary-Treasurer, Dr. J. Howell Way, Waynesville, N. C.

tissue paper, which is then plentifully smeared with vaselin.—Med. Rec.

Inexpressible.

Doctor: "Let me see your tongue."

Patient: "Oh, doctor, no tongue can tell how sick I feel."—January Lippincott's.

Constipating Action of Morphine.

Magnus describes his observations on the effect of morphine on the intestinal tract. There were made mainly on cats, though some dogs were also used. Nothnagel maintained that therapeutic doses of morphine stimulated the splanchnic inhibitory fibers and in this way checked intestinal motility. Some observers have agreed with this view, others have opposed it, but most of them regarded the small intestine as the chief site of the morphine action. The writer found by means of radiographic observations on cats in whom diarrhœa had been induced

by milk diet, that it is the stomach that is most affected by the alkaloid. The constipating effect is not produced through the sympathetic inhibitory fibers, for section of these in the experiment animals did not modify the results. The chief action of the morphine consisted in a presistent contraction of the stomach-wall in the neighborhood of the so-called sphincter of the pyloric antrum. At the same time the pylorus retarded the passage of the food into the duodenum so that it entered the small intestine much belated, and then only very slowly and in small portions that were more fully digested than usual. The small intestine was but slightly affected, and the colon least of all. The author reminds the reader that these results as yet apply only to the two varieties of animals experimented on, and suggests careful clinical observations with a view to estimating the fidelity with which the conditions in man are reproduced in the animals.—Munchener medizinische Wochenschrift.

Importance and Treatment of Myalgia.

Peritz emphasizes the importance of differentiating between neuralgia and myalgia, especially on account of the liability of the latter to be mistaken for an affection of some vital organ, and directs attention to the efficacy of proper treatment. The painful points in neuralgia generally correspond to the points at which the nerve emerges from the bone or comes toward the surface. In myalgia, the pain is usually located in the muscle itself, and is always distributed over a much larger area than in neuralgia, while the tenderness persists during the intervals between the attacks of pain. There is also generally a zone of hyperalgesia above the affected muscles, but it does not parallel the course of the nerves. The myalgia generally develops by preference where the muscle is thinnest and most exposed. In the writer's illustrations the myalgic points are seen to correspond to the points where the muscle blends into its tendon, and they are generally at the edge of the muscle.

Myalgia has been found by the author to be rebellious to electricity, massage, and the salicylates, but has always yielded promptly to injections of a 0.2 per cent. physiologic salt solution, directly into the muscle. Several injections are made at different points over the painful area, and repeated later if necessary. In one instance, an elderly patient was suddenly attacked with pain in the precordial region, which recurred spasmodically several times a day and radiated into the arm. Nothing abnormal could be found in the heart action except a rhythmic dropping of every fourth beat. The writer was able to determine the existence of myalgia of the upper part of the free margin of the pectoralis major. Injection of the salt solution cured the myalgia and the nervous symptoms, including the cardiac arryhthmia, also varnished.

The author thinks it probable that the form of angina pectoris in which benefit is obtained from massage is probably myalgia. In the epigastric region it is liable to be mistaken for a stomach trouble. The affected part of the rectus muscle may exert pressure on the stomach, especially when that organ is distended after a meal, producing symptoms simulating "nervous dyspepsia." The reflex symptoms of myalgia may include headache and vertigo and pains in the compensating sound muscles, as in myalgia of the gluteal muscles, in which the pains are generally referred to the outside and calf of the leg.—Berliner klinische Wochenschrift.

Nasal Catarrh.

Chronic nasal catarrh is for convenience divided into three stages or varieties: (1) Simple Rhinitis, (2) Hypertrophic Rhinitis, (3) Atrophic Rhinitis. In the first form there is a simple chronic inflammation of the pituitary membrane uncompticated by serious structurul changes, but attended with a discharge of mucous or mucoupus.

When this condition is allowed to continue for any considerable length of time structural changes take place in the mucous membrane and we have Hypertrophic Rhinitis as the result. There is usually an excessive secretion of thick tenacious mucous which more or less occludes the nasal passage. Enlargement of the adenoid elements in the adjacent parts of the pharynz coexist as a rule. In this form of the disease the inferior turbinated body suffers the most frequently and to the greatest extent; this in turn may irritate the neighboring pharyngeal parts,leading to Chronic Pharyngitis, catarrh of the eustachian tube and even Chronic Laryngitis. The third form of the disease or Atrophic Rhinitis follows as a sequence of the former or second variety. It is the result of contractieu or fibrous tissue formed upon and around the vessels and glandular structures and consequently their obliteration. The membranes are dry and covered with dry scabs and mucopus which become offensive and abundant as the disease progresses. The olfactory sense may be partially or wholly lost. We give this brief history of pathology to prove that a case of simple nasal catarrh may turn out to be a grave disease in the end if not promptly and properly treated. "Clean up and keep clean" should be our motto. The remedy best suited for this

purpose should be one that is alkaline in reaction, non-irritating and certain enough antiseptic qualities to disinfect the nasal cavity without producing toxic symptoms. The remedies that have been in general use are Carbolic Acid, Acid Salicylic, Acid Boracic and Sodii Bicarb, in solution or in combination. but we have found a remedy that surpasses these as well as others in results. This is Glyco-Thymoline. This remedy can be used in all percent. solutions up to the plain drug according to the sensitiveness of the nasal mucous membrane and the condition for which it is prescribed. In the treatment it is necessary to remove all pus, mucous, scabs, scales and dead bone if any be present. To remove all these except the last Glyco-Thymoline should be used through a syringe until the entire tract is clean, then if there be any specially diseased points it should be applied to them in full strength. In all mild cases of catarrh a thorough cleansing with this remedy and keeping the cavity scrupulously clean afterwards with same will be all that is necessary to effect a cure. That the reader may better understand the value of this remedy in this disease we will report the clinical history of a few cases selected from our notes:

Case 1. Mr. F. M., farmer, age 37. Presented the following history: At times the nasal secretions were profuse and mixed with pus, at others the nose was very dry and breathing was difficult. Examination revealed a highly sensitive mucous membrane thickened and congested. The mucous follicles on the post-pharyngeal walls were also enlarged and secreted a tough tenacious mucous which kept the patient hawking to clear his throat. Diagnosis: Chronic Rhinitis. Treatment consisted in cleansing the canal thoroughly with a twenty percent. solution of Glyco-Thymoline. The patient was then instructed how to douche the nose night and morning with the above solution of Glyco-Thymoline, and return once a week to my office. Improvement was rapid and at the end of one month patient was dismissed.

Case 2. Miss B. M., housekeeper, age 22. Good family history. Last March she contracted La Grippe in a severe form, following which more or less nasal trouble was in evidence. There were periods of sneezing, dryness and a decided flow of clear liquid. At times the dryness was so marked that she could not breathe through the nose. Finnally the watery discharges become watery and at times contained pus. Headache developed, head noises, dropping into throat and many other symptoms. Examition showed a highly congested pituitary membrane while, the anterior cavity was fill-

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ed with dead scabs and scales. The lining to the eutachian tubes was so swollen that it was impossible for air to reach the middle ear. Diagnosis: Chronic Rhinitis. Treatment consisted in thoroughly cleansing cavity with a twenty percent. solution of Glyco-Thymoline. When all scabs were removed the pituitary bodies were touched with the drug in full strength: the bag was then used to inflate ear and the nose and throat s prayed with the atomizer. Patient was instructed how to cleanse nasal cavity with the remedy three times daily and to come to the office twice a week. The improvement was decided from the of the first treatment and in six weeks there was not a trace of the disease.

Case 3. Miss Lizzie R., age 16 years. She was much reduced in flesh and was very anemic, complained of attacks of sneezing in which she would sneeze from eight to twenty times before she could stop. Nose would discharge freely, then become very dry. She also suffered headache, giddiness, and a continuous full feeling between the eyes. There was dropping into throat at times and she had a troublesome cough with wheezing in chest. The mucous membrane was highly congested, covered in places with scabs and tough mucous that was highly difficult to dislodge. A deep angry ulcer presented on the anterior surface. There was also a Pharyngitis and Laryngitis and catarrh of the eustachian tubes. Diagnosis: Chronic Rhinitis complicated with Pharyngitis and Laryngitis. Treatment was same as in second case except throat and larynx were sprayed daily with Glyco-Thymoline. Patient was also placed upon Fowler's Solution, *mv* three times daily after meals and Cod Liver Oil one hour after meals. The condition showed marked improvement after the second week and at the end of another week patient was entirely well.—By C. W. Canan, A. B., M. D., Orkney Springs, Va.

Chronic Cervicitis.

This is a condition which very frequently confronts the general practitioner and gynecologist. Leucorrhea, a sympton which many ignorant persons wrongly consider a disease is due in a large percentage of cases to a large increase in the amount of cervicial discharge, two kinds of infections attack the glands of Naboth—gonorrheal and simple micro-organisms found in the vagina. The first variety occasions a purulent discharge which may appear only at times when the infected gland discharges its contents. The second variety begins as a rule when small retention cysts from in he cervix. Retention and decomposition cogland material sets up a low grade inflamation which may persist for years ana prove very difficult to cure. Chronic cystic cervicitis is characterized by thick transufulent glairy discharge.

In general the treatment of this disease is surgical and local although in certain cases where the patient's condition is one of lowerer vitality, hygienic conditions should be improved and tonics employed.

Free drainage should be afforded the infected structures, and this can best be accomplished by puncturing each distended gland, which feels like a shot or pea to the palpating finger, with the tip of a bistoury, allowing the escape of purulent or glairy material.

Tincture of iodine should be painted over the surface after scarification and douches twice daily, together with applications of mild astringent antiseptics, should effect a speedy cure. In such conditions, Katharmon is very valuable since it is non-irritating, and prevents septic decomposition. Among other ingredients it contains hydrastis, phytolacca, boro-salicylic acid and sodium pyroborate dissolved in pure distilled extract of witch hazel. Hydrastis is a valuable alterative, astringent and antiseptic, when applied to diseased membranes, and phytolacca exerts an aborative influence on beginning inflammations.

Borosalicylic acid and sodium pyroborate are efficient antiseptics disinfectants, and dedorants, and witch hazel possesses the tonic and astringent properties possessed by tanin. Thus the value of Katharmon is readily understood when the physiologic effects of its constitients are borne in mind.

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Advance of the Plague.

More than thirty deaths from bubonic plague have occurred in San Francisco, and the number of verified cases exceeds fifty. The State Board of Health has decided to appropriate $1,500 to be expended in fighting the disease, and steps have been taken to establish a quarantine barge in the bay for the purpose of inspecting and fumigating bay and river craft. Two cases are reported in Marseilles, the patients being passengers on an Italian Steamer bringing a number of Syrians from Beirut.—Med. Rec.

Affinity

It is clear they were made for each other;
What else can a kind fate intend?
For, just to the penny, his salary
Is the limit of what she can spend.
—February Lippincott's.

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Myelopathic Albumosuria.

Brown (Brit. Med. Jour.) reports the case of a Jewish man of fifty years, complaining for about a year with pains in the hands and legs. Later all over the body. Examination showed anemia, tenderness of the ribs on percussion, intense pain on being moved, some bronchitis, and an albuminous body in the urine. This latter body was determined to be the albumose described by Bence Jones. Hard nodules soon appeared on the ribs over the previous painful areas, hard movable glands in the right axilla, diarrhea set in, the urine became scanty, and the patient died in about a month. No autopsy was permitted. The author describes the tests leading to the detection of the albumose and believes the case to have been one of myelopathic albumosuria, or Kahler's disease. This form is always associated, the author believes, with diseases of the bone marrow. He denies that albumose is alimentary in origin because (1) proteolysis normally proceeds beyond this stage, the terminal products being hexone bases and amino acids; (2) the B.-J. albumose reactions are not identical with the digestive albumoses; (3) a considerable alteration of diet has no effect on the amount of proteid excreted (confirmed in the author's case); and (4) the alimentary view does not explain why marked and persistent albumosuria should appear in this particular variety of malignant disease. In this particular case the diagnosis was for a time obscured by the fact that there coexisted a true albuminuria with hyaline and granular casts. Death apparently resulted from a terminal pneumococcic infection.

Gastrojejunostomy.

Paterson (Lancet) thinks we are justified in drawing the following conclusions as to the physiological effects of gastrojejunostomy: 1. A certain amount of bile and pancreatic juice enters the stomach after gastrojejunostomy, but the amount is small and has no injurious effect. 2. The acidity of the gastric contents is markedly diminished, usually about thirty to thirty-five per cent. This is due, partly to a diminution of the total chlorides secreted, partly to the partial or complete neutralization of the free hydrochloric acid by the alkaline bile and pancreatic juice, and probably also to earlier stimulation of the pancreatic secretion, and compensatory earlier fall of the gastric secretion. In gastric ulcer cases the removal of spasmodic stenosis of the pylorus likewise tends to diminish the total acidity. 3. Gastric digestion is impaired but not lost after gastrojejunostomy. 4. The motility of the stomach, if normal before operation is for practical purposes, unaffected. Gastrojejunostomy is therefore not a drainage operation. Its beneficial effects on gastric ulcer are due to the diminution of the acidity of the gastric contents. 5. Gastrojejunostomy has no material effect on the metabolism of the human body, the percentage of nitrogen and fat absorbed being within the limits observed in individuals who are apparently healthy. This chemico-pathological evidence is supported by the evidence of clinical experience.

Prevention of Scarlatinal Nephritis.

Thompson speaking in regard to the use of a prophylactic drug against the nephritis of scarlatina says that urotropin is the only one which has proved itself of value. Of 47 consecutive patients treated with this agent by the writer, not one had nephritis and only one exhibited albuminuria. These facts are considered encouraging enough by the author to suggest the further use of the drug in scarlatina. Patients treated with hexamethylenetetramine were less fortunate in escaping nephritis, and the writer holds this drug to be not an exact equivalent of urotropin when considered from the point of therapeutic results. It is suggested that all instances of scarlatina be treated from the beginning with 5-grain doses of urotropin three times a day for children up to twelve years; for patients above this age 7½ grains thrice daily are advised. Generous dilution of the drug with water is necessary and the treatment should be continued to the end of the twenty-eighth day of the disease.—Edinburgh Medical Journal.

Spontaneous Aneurysm of the Popliteal Artery Treated by Extirpation.

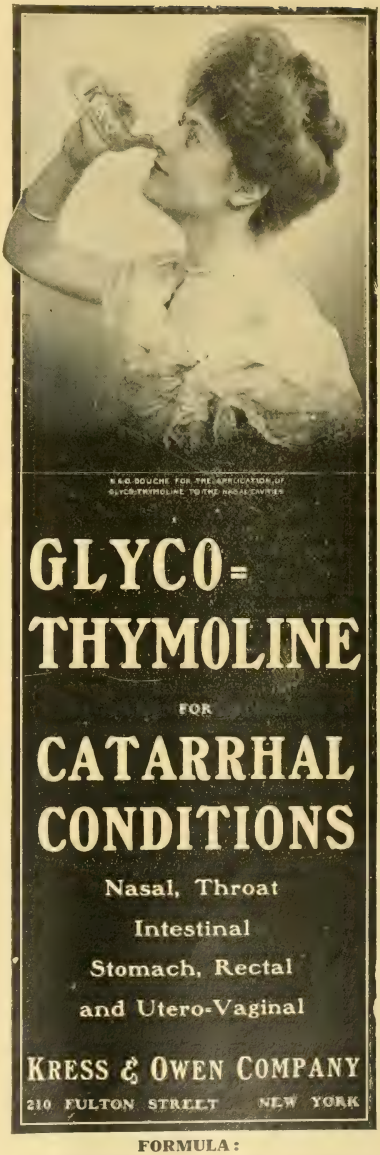
Lediard (The Lancet) reports the case of a man of fifty-four years, laborer, who three months previous to coming under observation had strained his right knee and had had, subsequently, pain in the knee and calf while at work. Two weeks before admission to hospital a swelling came on the popliteal region and grew rapidly. When seen it was pulsating, fusiform, and expansile, while both thrill and murmur were present. Incision was made six inches long over the popliteal space, the artery dissected out, ligated above and below, and the segment exsected. Some difficulty arose in separating the popliteal vein from the aneurysmal sac. The patient made a good recovery and left the hospital in about three months, able to kneel slowly without pain and to walk with only a slight limp. Three months later he was able to walk several without a cane and to do light work, as gardener, etc. The author refers to recent literature on the subject of aneurysms.

Irregularity of the Pulse in Diphtheria.

Peters (Lancet) claims that irregularity of the pulse in diphtheria in children is really of little special significance, being due to the great incidence of the disease in the early years of life, especially the fourth and fifth years. Children at this age, he says, commonly exhibit this symptom in any febrile disturbances and often in apparent health. The irregularity is very common indeed, it being found in over eighty per cent. of the author's cases. Comparisons of similar numbers of diphtheria and scarlet fever cases showed about the same percentage of cardiac irregularity. The irregularity is referred by various authorities to a nervous origin rather than a cardiac. There seems to be an excessive susceptibility in the inhibitory action of the vagus, and it is believed that the rhythmical stimulation of the respiratory center has a rhythmical effect on the vagus center. Peters refers to Barr's explanation vs. the mechanical effect of the respiratory act on the circulation. The fall in blood pressure in disease is undoubtedly the primal cause setting up the irregularity. If actual myocarditis is present an irregular pulse is of course of the gravest significance. In most diphtheria cases with irregularity the latter continues during hospital stay and the children are kept in bed week after week when they would do better if in the open air, which would certainly improve their anemia. We must first carefully assure ourselves that the irregularity is more than respiratory. The presence or absence of cardiac signs will help decide this point.

Mongolian Pigmentation in Two Berlin Infants.

Tugendreich (Berliner klinische Wochenschrift) explains that whereas as long as it was supposed that the peculiar pigmented spots occurring a little above the anus in Japanese infants were a racial characteristic the Japanese were proud of the mark and regarded it as an evidence of especial distinction. Further investigations have shown, however, that the accumulations of pigment cells forming the spots are also found in the other Mongolian races and to some extent in nearly all monkeys. The spots therefore are considered as being connected with the evolution of the human being, and it has been suggested that the races exhibiting them to the most marked degree are nearest to the lower forms. Accordingly the Japanese have been anxious to demonstrate the presence of similar marks in members of other races and have succeeded in doing so in many instances. Adachi found the pigment cells ten times in examining the bodies



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of twenty-four infants in Strassburg. Epstein estimates that the pigmentation may be seen in one out of about 600 white infants. Tugendreich has seen it twice out of 1,200 cases and says that even although a certain racial characteristic may sometimes occur in other nationalities it does not therefore lose its value as a distinctive mark, for even the relative frequency with which it occurs may be looked upon as a typical sign. It is interesting that the spots have been quite often found among Hungarian children and the relationship between the Magyars and Mongols is pointed out in this connection. Apparently in the instances that have been reported of pigment spots in white infants the individuals have all been of the dark type, with brown skin and brown iris.

The Pathogenesis of Hirschsprung's Disease.

Neter (Munchener medizinische Wochenschrift) says that in spite of the numerous modifications which the conception of this affection has undergone in the last few years, it may be defined as being a type of constipation appearing in earliest infancy, often during the first days of life, that is extremely obstinate, and is not rarely fatal. Anatomically there is always found a marked dilatation of the lower portion of the colon, particularly of the sigmoid flexure, and usually also an abnormal dilatation of this portion of the intestine. Hirschsprung assumed that the dilatation and hypertrophy of the sigmoid were congenital, but some observers had advocated the view that there is a congenital dilatation of the lower portion of the colon with aplasia of the musculature. Others have believed in an idiopathic dilatation of the colon or in deficient tonus of a normal muscular wall in consequence of inadequate innervation. The author is of the opinion that the fundamental condition leading to the development of Hirschsprung's disease consists in an abnormal length of the sigmoid and that the dilatation and hypertrophy are secondary and not congenital changes. A case in point is reported which the author regards as affording evidence in favor of his theory.

The So-called Acquired Lymphangiomas of the Neck.

Deucks (Munch. Med. Woch.) states that cavernous lymphangiomas of the neck are rather rare as a congenital condition, and are much more so as neoplasms appearing later in life. He has been able to find only six instances of the latter sort, and numerous authors, as a matter of fact, do divide the congenital and acquired lymphangiomas of the neck into two distinct classes. The author describes two cases of cystic lymphangioma first appearing during adult age, and as the result of the analysis of these, as well as of the other cases reported, he reaches the conclusion that the distinction between the congenital and so-called acquired growths is not tenable and that both genetically and morphologically the neoplasm is the same in each case. The germ of the new growth must be assumed as existing congenitally and the difference consists only in the time at which the growth becomes independent. While in most of the cervical lymphangiomas development occurs during intrauterine life, so that a tumor is already present at the birth of the fetus, in some instances the latent germ develops into a tumor only later in life. Why this peculiar course is sometimes observed cannot be explained, but it appears that the period of puberty has something to do with the development of the lymphangiomas, as is the case in the branchiogenetic cysts.

The Borderland of Disease.

There is a growing tendency on the part of medical men to recognize the pathological importance of certain, at present, little understood conditions of the blood. Some of these indeterminable deviations from the normal present none of the aspects of the anemias, but nevertheless bear a direct relation to increased susceptibility to bacterial infection. The studies of Wright on the opsonins, so-called, are of special interest in this direction, inasmuch as they have in a measure converted many of our abstract theories into concrete facts. That certain constituents of the blood may be diminished without apparent decrease of the corpuscular elements or of the hemoglobin, is at last fairly well established, and while the specific properties of these constituents are not as yet definitely known, there is abundant reason for attributing certain phases of malnutrition, as well as a general lowering of organic resistance to bacteria, to their absence or decrease. The clinical expression of this blood weakness, or chemico-physiologic deficiency, is subject to great variation, but the symptom-complex usually consists of a general physical decline, loss of weight, increased tendency to fatigue, and a fickle or decreased appetite,—all of which go to make up a picture of what is usually loosely termed general debility. In addition, when the blood dyscrasia is marked, two objective symptoms are frequently noted. There are slight transitory enlargement of the cervical lymphatics, and a marked susceptibility of the skin to abrasions and infection. Simple injuries produce wounds that heal poorly

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and the processes of repair seem to be very feeble and inadequate.

This then in a general way constitutes what may be called the borderland of disease, a condition which even if it does not always precede tuberculosis, typhoid fever, pneumonia and many other diseases, certainly favors their development and tends to increase their severity.

The correction of this indefinite but none the less dangerous state of the blood is always urgent, particularly because of the favorable opportunities presented for increasing the resistance to those diseases to which it predisposes.

Regulation of the diet, careful attention to the personal hygiene, and as much outdoor living as possible are the essential features of the careful treatment of this condition of blood depravity. A good tonic is quite necessary in connection with the foregoing, and Pepto-Mangan (Gude) has been found very effective. Its pronounced hematogenic action is well known, and the rapid hematosis which result from its administration unquestionably has a decided influence in coincidently raising the relative immunizing power of the blood. Reparative processes in wounds are stimulated, simple glandulous swellings disappear, and tangible improvement in the general bodily nutrition rapidly follows. All this is accomplished, moreover, without placing the slightest tax on the digestive tract, and the patient is thus able not only to derive the fullest benefits from every effort in his behalf, but the course of his recovery is progressive and unbroken. His vital resistance is materially raised and the balance of functional vigor restored to the normal. That the extent to which this is accomplished measures the decreased liability to infectious disease, can no longer be doubted.

Carcinoma — Unexpected Recoveries. Weindler (Centralblatt fur Gynakologie, reports three cases which have occurred in his own practice. All were tumors of the cervix and uterus.

In the first case a vaginal total extirpation was contemplated, but abandoned on account of the extensive infiltration found at operation. Instead, the womb was deeply curetted, and the cavity burnt with the actual cautery. At long intervals the wound was cauterized with pure carbolic acid. The wound healed properly, and there has been no return of the growth for five years. The other patients exhibited similar lesions, but the firm adhensions of the uterus showed operation to be hopeless. Both were treated by removing as much of the tumor as possible with the sharp curette, and burning the wound deeply with the actual cautery. This was followed by the carbolic acid treatment. These cases have remained free from recurrence for four years. Czerny has cured a case by a similar procedure, using tampons soaked in 30-per cent. zinc chloride solution instead of the carbolic acid. The recovery of these cases is not yet satisfactorily accounted for. Various explanations are offered by different pathologists, but the effect of the cauterization on the blood supply seems to be the most important factor.

Neuralgia of the Rectum.—Albu, Berliner klinische Wochenscrift. says that this is a purely nervous disease, having as its chief or only symptom pain in the rectum, anus, and adjoining parts. The pain radiates into the gluteal regions. toward the sacrum and perineum. and even, as in two of the author's cases. into the thighs. The pain is described as boring, burning, or lightning-like, is sometimes extremely severe, comes on in sudden seizures, and lasts from a few minutes to several hours. Sometimes the sufferer is rendered incapable of work by day and of sleep at night. The patients always suffer from neurasthenia, due to mental over-exertion. physical stress, irregular living, the misuse of alcohol, or tobacco, etc. Of Albu's five patients four were men, while Gant says that women are more often affected than men. Albu was not able to determine any cause for the onset of the disease and found that it had no relation to constipation. The diagnosis should bemade only by exclusion and every other possibility should first be thought of. As examples of possible sources of error, he describes the cases of two patients whose symptoms for a time simulated rectal neuralgia, but one of whom suffered from carcinoma of the prostate and the other from tabes. The treatment includes anodynes by mouth, rectum, and subcutaneously, avoiding opium and its derivatives, belladonna in large doses proving very useful. Other measures are hot baths, douches of hot water and steam, hot compresses, moist applications, etc. A most effective procedure is the systematic introduction of thick bougies, which apparently act by distending the diseased nerves. Regulation of the bowels should, of course, not be neglected.

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Samuel G. Tracy, M.D., New York, states (*N. Y. Times.* Jan. 3, 1908) that among the most important of the prophylactic measures to be adopted during the prevalence of grippe and pneumonia is the regular and careful cleansing of mouth, teeth, tonsils and nose.

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A New Method of Testing the Functions of the Digestive Apparatus.

Einhorn (Therapeutic Gazette, January' 1908) submits a method for investigating the functions of the intestinal tract, the principle of which is the administration of test substances with the food and observation of the effects of the digestive fluids upon these substances.

Practically this test is made as follows; Patients are given in a gelatin capsule a string of beads with the following substances attached thereto: catgut, fish-bone' meat, thymus, potato, mutton fat. After administering the capsule, every stool is examined with the stool-sieve until the bead-string has been recovered. If diarrhea is present the sifting may not be necessary, as the head-string can readily be seen (usually at the bottom of a glass vessel.)

Under normal conditions the bead-string appears after one or two days. It is then rinsed in cold water and examined. If digestion is normal we find that catgut, meat and potato (except the skin) disappear entirely, thymus and fat almost entirely, whereas the fishbone usually disappears, but occasionally it may be present. The nuclei of the thymus always disappear. In pathological deviations from the normal are observed, not only in regard to the time of recovery of the beads (disturban- of motility), but also in regard to the presence of the food substances (disturbances of the digestive function).

The author divides his cases of intestinal digestive disturbance into two groups:

1. Those of pure nervous intestinal dyspepsia.
2. Those of genuine intestinal dyspepsia.

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Modification of Leishman's Method of Estimating the Opsonic Index.

Dodds (Brit. Med. Jour.) after experiments with blood and citrated emulsion of tubercle bacilli, said the results showed marked discrepancies between the Wright and Leishman methods, a normal index working out, for instance, to 2.0 or to 0.5, and seldom exactly to 1.0. After trials in various directions it appeared that the inconstant factor vitiating results was the differing number of leucocytes in the respective bloods. Counts of the leucocytes, estimations of the index by Wright's and by Leishman's method modified, were then made, and it was found that the figures, expressing the index by Leishman's method and the number of leucocytes, varied inversely, the emulsion being constant. By a simple formula, based on the above proposition, several apparent indices were corrected, and were then found to agree closely with those estimated by Wright's method; but still discrepancies occurred, and for the following reason: It is usually convenient to obtain blood by the pressure of an elastic or other band; if the same drop of blood thus obtained is used both for the index and leucocyte count, good results are produced. But this needs agility, and in practice would require ad assistant. If different drops of blood are used, the hemocytometer and incubation pipettes may contain differing numbers of leucocytes; it is inconvenient to get blood without pressure, as a deep puncture has then to be made, possibly daily. Finally, a simple plan was hit upon; after mixing blood direct from the finger—under any pressure, with the bacillary emulsion, the number of leucocytes in the mixture itself was counted, either before or after incubation, each batch being done in the same way. For this the red blood corpuscle pipette serves, and the process is more rapid if there is one for each blood; but any pipette and any dilution desired may be used by drawing up successive volumes of the mixture and diluent as recommended by Wright. After using a drop or two to make a film the mixture is kept in its capillary tube till required for the leucocyte count. The total number of leucocytes need not be estimated, the figure expressing the average for the fields sufficing. A fallacy exists that the phagocytes are not in constant proportion to the total number of leucocytes. The actual modification of Leishman's method is very simple. The capillary pipefte is that in ordinary use, it is convenient to make a bend in it 2 to 3 inches from its distal end. A rubber tube, as in the hemocytometer pipette, is easier to manage than a rubber teat, or a Wright's throttled pipette may be used. A mark is made above the bend, giving a long column of blood and emulsion, making for greater accuracy of dilution and providing enough of the mixture for its two purposes—namely, for making a film and for leucocyte count. The emulsion consists of (tubercle) bacilli suspended in citrated normal saline—say, 0.75 per cent. each of sodium citrate and sodium chloride. This emulsion is sucked up to toe mark above the bend; it will be found that it is difficult or impossible to do this with a rubber teat owing to fluidity of the emulsion (unless a throttled pipette be used). The pipette may now be laid down, and the column of emulsion will be found to stay steady while a puncture is made in the finger. A short column of air having been taken up, a column of perfectly fresh uncoagulated blood is aspirated to the mark,

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and the whole rapidly blown out on to a glass slide, so that the citrate may at once act on the blood and so prevent coagulation; this is not so efficiently done if blood is taken up first. The two fluids are then mixed, aspirated, sealed, and incubated, unless a portion be reserved for the leucocyte count. The films are made in the usual way, by blowing out and mixing before spreading; this remixing is important if the estimation of the leucocytes is made after incubation. The film need not be fixed before staining with carbol fuchsin; the index is calculated in the usual way. To correct the apparent index, multiply the control index by its corresponding number of leucocytes and divide the result into the other index multiplied by its corresponding number of leucocytes.

Fatal Case of Angioneurotic Edoma.

Bazett (Lancet) reports the case of a poorly nourished man of 33 years who was found dead from suffocation on the physician's arrival. It was learned that he had had scarlatina at the age of six years and had thereafter been subject to frequent attacks of violent abdominal colic, lasting sometimes for nearly 24 hours. Associated with them, though never apparently synchronous, occurred sudden swellings of various parts of the body—hands, thighs, and scrotum. These swellings were apparently induced by slight injuries or chills. In childhood they had attacked the face and throat but never since. No medicine had been of any avail. In the final attack swelling began after the skillful extraction

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of a bicuspid tooth with an apparently healthy gum. In twelve hours the cheek began to swell on that side, the swelling extending over the face and eyelids. Toward night of the same day the neck began to swell and then the throat. During that same night he awoke choking, sprang up, and tried to clear his throat with his finger, but died in the suffocating attack. A diagnosis of angioneurotic edema was made by the reporter and was concurred in by several physicians who saw the case. There was no family history pointing to any hereditary influence. Autopsy, 42 hours after death, showed some edema of the larynx on the ary-epiglottic folds. Immediately after death the structures around the faucial aperture were swollen and this swelling increased during the 24 hours succeeding death, but had nearly disappeared by the time the autopsy was made.

Influence of Diet on the Liver.

Watson (Lancet) details the results of two series of observations. One experiment consisted in feeding a large number of rats on an exclusive ox-flesh diet, this being essentially a mixed diet of protein and fats. In this experiment it was observed that the percentage weight of the liver in meat-fed rats was, as a rule, considerably greater than in the control bread-and-milk fed subjects, the difference beiag such as could not readily be explained by mere variation in the blood-supply of the organ. An objection may be raised that the use of an exclusive flesh diet is too unnatural a regime to allow any deductions to be drawn which can be applied to conditions obtaining in man. To meet this objection attention is therefore more particularly directed to the detailed results of a second series of observations, which consisted in comparing the percentage weight of liver tissue in wild rats living, it is assumed, on a highly nitrogenous dietary with those of an equal series of animals obtained chiefly from the same source which were fed on a diet of bread and milk in fixed proportions, a diet which contained a much smaller proportion of nitrogenous food. This diet of bread and milk is one which has been proved to be well adapted for the growth, general health, and fertility of the ordinary tame rat.

What Can the Family Doctor Do for the Inebriate!

Bolton (British Medical Journal) would begin the treatment of alcoholism with a hypodermic dose of apomorphine, even if the patient is delirious. He will quiet down and go to sleep with perhaps antecedent vomiting. The next step is to determine whether the man wants to give up alcohol or simply to get straightened out. Patients cannot be cured against their will, but sometimes new hope may be put into them and they can be shown that a permanent cure is perfectly possible. Combinations of atropine and strychnine may now be used, also hypodermically, two or three times daily. For a stomachic capsicum and cinchona tinctures are recommended, preceded if necessary by a calomel purge. Albuminuria is no contraindication of the foregoing. In fact, the urine often clears up under the treatment. As the general condition improves the frequency of the injections should be lessened. Depression and despair pass away. The nerves are steadied and appetite returns. It is needless to say that such a treatment can be carried out only under strict regular medical supervision. The patient must be warned against overconfidence. If he becomes restless he should at once submit to a brief renewal of treatment. A relapse is not more difficult to treat than any original attack. Old, harmful associations must be broken up and the mind and body both occupied in useful work and healthy recreation.

Vincent's Angina Involving the Larynx and Trachea.

Bruce (The Lancet) reports the case of a man of 47 years with a purpuric rash, mainly on the lower extremities for some five days, with a bloody diarrhea. He did not complain of his throat, but on the day after admission to hospital his respiration suddenly became obstructed and a laryngotomy was necessary. Subsequent examination of the throat revealed a sloughing uvula and a soft palate typical of Vincent's angina. Culture tests confirmed the diagnosis. The laryngotomy tube was retained ror four days. Meanwhile there was considerable cough and expectoration and a very foul discharge from the tube. The tissues of the neck about the wound became swollen and indurated and in two or three days began to slough. A gangrenous process spread downwards and outwards on both sides of the neck, on the left side as low as the clavicle. It then stopped spreading and a sharp line of demarcation from the neighboring tissues began to form. Signs of pulmonary involvement soon appeared and the man died in a septic condition on the eleventh day. Autopsy showed the uvula nearly separated by the sloughing process. The lateral edges of the epiglottis and the edges of the ary-epiglottic folds were covered with a superficial green slough. The laryngeal mucosa below the false cords and of the trachea nearly down to the bifurcation were in the same condition. Several of the tracheal rings were bound by the same necrotic process. A diffuse broncho-

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pneumonia was found in the lungs. The lesions in general resembled those of hospital gangrene. The process in the neck was doubtless secondary to that in the respiratory tract and resulted in direct infection of the laryngotomy wound by the laryngeal and trachial discharges.

Treatment of Injuries of Neighboring Organs in Hebosteotomy.

Kroemer (Zent. f. Gyn.) considers hebosteotomy as an operation more appropriate for the hospital than for the private house. When the bladder and vagina are injured in this operation the rent should be at once repaired, since there is danger of asepsis from extravasation of urine into the tissues around. It is possible to so safeguard the bladder during the operation as to prevent injury. The author has tried various forms of technic, and prefers the subcutaneous method, by the symphysis from below upward, so that the finger passes along the surface of the bone, and the saw avoids the bladderr There is considerable bleeding if the clitoris is cut through as Tandler advocates doing. The upper opening of the needle canal is closed with a suture so as to prevent infection. The bladder may be wounded through a lateral incision, by the needle that leads the saw, by the tearing of the pubovesical ligament when the widening of the opening occurs quickly, or by the

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head pressing on the bladder against the bone during a slow passage through the pelvis. Each sort of lesion has its special region. The wound by the carrier of the saw occurs at the summit of the bladder wall and the saw is drawn through the bladder so that bits of bladder epithelium appear on the saw, or urine wells out of the canal. This wound is on the front wall of the bladder. Tears arising from too rapid separation of the bones are on the lower portion of the wall near the urethra which is generally torn. Such lesions leave behind incontinence of urine from the tearing of the sphincter vesicæ. Pressure lesions come on during the puerperium from exfoliation of a necrotic portion of the bladder wall. They are at the lower part of the bladder. The permanent catheter is of value only in cases of this last class. Wounds by the saw and stretching should be sutured at once. The bladder may be protected by carrying the saw along the finger either from above or below. Tears at the neck of the bladder are better avoided by the subpubic vestibular incision. The bladder is filled partially with fluid, the catheter put in place, and then the bladder is filled. The ligament is loosened after making the incision, and the finger passes along the symphysis, the needle following it. After sawing, the vestibular incision is sutured. In spontaneous delivery there is no fear of tearing, but after version there is danger. Since using this method the author has had better results than previously. Of nineteen cases operated on, the author has had recoveries in all.

On the Use of Drugs in Diseases of the Heart.

At a special meeting of the Medical Association of the Greater City of New York, Dr. Reynold Webb Wilcox, in discussing the action of different drugs on the heart, said: (Medical Record Feb. 8th, 1908) "There was only one drug which both increased the force and frequency of the pulse, and that was Cactus. It was especially useful in neurotic heart and slow heart. If an active preparation was used, and such was readily found in the shops, brilliant results were obtained in appropriate cases." Cactina Pillets are manufactured in our laboratory under the personal supervision of a pharmaceutical chemist, and we can assure the medical profession that Cactina Pillets express the excellent therapeutic properties of the true Cereus Grandiflorus in the fullest and in the most perfect and convenient form.—Sultan Drug Co.

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ANALYSIS OF MEATOX

Moisture	4.80
Celery Flavoring (residue from alcohol extract)	2.21
Sodium Chlorid	4.56
Proteid Matter	73.54
Insoluble Matter	9.43
Total	94.54
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	99.50
Loss	.50

MEATOX has practically five times the meat value as a food, and as such will command the attention of every physiologist and hygienist interested in food products.

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ANALYSIS OF MEATOX
Contains in 100 parts by weight:

Nitrogenous matter soluble in water calculated as Albumen	12.02
Fibrin, digestible	70.34
" indigestible	.90
Extractive matter free from Nitrogen	2.18
Fat	7.00
Meat Phosphates	.26
Chlorid of Sodium	.94
Water, hygroscopic	6.34

From the large quantity of soluble Albumens and digestible Fibrin it is evident that this preparation in connection with the fat therein furnishes an excellent nutritive, easy of digestion. H. ENDEMANN.

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portance for accuracy in prescribing, and in the treatment of disease, that students of medicine be instructed fully as to those portions of the United States Pharmacopoeia which are of value to the practitioner, and that members of the medical profession be urged to prescribe the preparations of that publication, and further, that this resolution be forwarded to the Medical and Pharmaceutical journals, and to the teachers of Medicine and Therapeutics in the United States.

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February 3rd, 1908.

From Folia Therapeutica.

Dr. Haynes, in one of the late numbers of that exceedingly interesting publication, Folia Therapeutica, discusses various cardiac tonics. First of all he refers to a fact which is now well established and one which numerous authors have emphasized at various times. He says that at present the physician has no assurance that the tinctures or other preparations of digitalis, strophanthus or squill, such as he may prescribe, will produce the desired effect on the heart. Digitalis leaves, for instance, may appear to be fine specimens, yet a tincture prepared from them may be of little value as a cardiac tonic. The trouble is that the active principle content is a variable quantity; the leaves may vary on account of being gathered at the wrong time, or because of soil peculiarity, incorrect methods of drying or some fault in their preservation.

As a whole the contribution of Haynes once more emphasizes the wisdom of using a preparation like Digalen—Sol. Digitoxin Cloetta. The average dose of this medicament (16 min.) contains 1-220 grn. amorphous digitoxin. Thus as its active principle content is uniform its therapeutic action is usually prompt and positive.

Signs of Death.

The following have been suggested as methods of deciding whether death has occurred:

a. Tie a string firmly about the finger. If the end of the finger becomes swollen and red, life is not extinct.

b. Insert a bright steel needle into the flesh. If it tarnishes by oxidation in the course of half an hour, life may be considered not extinct.

c. Inject a few drops of liquor ammonia under the skin. During life a deep red or purple spot is formed.

d. Moisten the eye with atropine. Durinn life the pupil will dilate.

e. Look at a bright light or at the sun through the fingers held closely side by side. During life the color is pink; after death a dead white.

f. After death a dark spot is said to form gradually on the outer side of the white of the eye from drying of the sclerotic, so that the dark choroid shows through.

g. Putrefaction is an absolute sign of death. Better delay for it than run any risk of burying alive.—Selected.

Bridge Whist.

The Bridge Whist craze is perhaps the strangest growth of modern times. Anne Rittenhouse thus speaks of what may be termed a disease fn the United States (*Broadway Magazine*):

"We are Bridge mad! We live it and eat it. We sleep, talk and worship nothing but Bridge. Our dinners are shortened that we may hasten to Bridge. We play it in town and country, in the mountains and at the seashore: we play it in season for excitement, and out of season for recreation. We even carry it into the sanitariums, where worn-out nerves cry enough, and play it on our pillows. It would almost seem that in the course of time the fashionable funeral will not be complete unless Bridge tables are set out during the ceremony. Is Bridge immoral? Yes, and again yes!"

Of course a game of Bridge is not necessarily immoral, but gambling for high stakes, no matter what game may be played, always leads to a certain amount of immorality and dishonesty. From the physician's standpoint, the question of immorality is not the main issue. We have to consider especially the effects upon health. The game has a wondrous fascination, especially for women who are nervous, emotional and fond of excitement. The high tension produced by continuous playing for many hours at a time, frequently morning, noon and night, wears out the nerves. Typical Bridge hysteria is one of the most serious forms of modern neurasthenia.

The victim often seeks a cure in health resorts. fashionable springs, baths, etc., but the deadly game is always with her and she steadily goes from bad to worse, until the intelligent physician can readily make out the diagnosis. Her haggard face and general symptoms of nerve break-down tell

Antiphlogistine

[Inflammation's Antidote]

Pneumonia

Apply over the thoracic walls, front, sides and back, and cover with a cotton-lined cheesecloth jacket, as shown in the illustration.

Bronchitis

Apply over and beyond the sterno clavicular region. If a dressing is put on when symptoms of bronchial irritation first appear, a serious development may be prevented.

Pleurisy

Apply over and well beyond the boundaries of the inflammation.

In all cases Antiphlogistine must be applied at least ⅛ inch thick, as hot as the patient can bear comfortably and be covered with a plentiful supply of absorbent cotton and a bandage.

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plainly the story of physical ruin. In some instances the first symptoms are disorders of the temper. "Is your wife a Bridge fiend?" the society man was asked. "Well, I wouldn't say so much as that, but I might call her a Bridge vixen."

The physician can seldom do much in the early stages of the disease, but he should put forth his best endeavors, even though in a large proportion of cases his good advice be treated with scant respect. In all cases, but especially in the latter stages, the first part of his prescription should be—absolutely no more Bridge.—Canadian Prac. & Review.

Shortly after two o'clock one bitter winter morning a physician drove four miles in answer to a telephone call. On his arrival the man who had summoned him said:

"Doctor, I ain't in any particular pain, but somehow or other I've got a feeling that death is nigh."

The doctor felt the man's pulse and listened to his heart.

"Have your made your will?" he asked finally.

The man turned pale.

"Why, no, doctor. At my age—oh, doc, it ain't true, is it? It can't be true—"

"Who's your lawyer?"

"Higginbotham, but—"

"Then you'd better send for him at once."

The patient, white and trembling, went to the 'phone.

"Who's your pastor?" continued the doctor.

"The Rev. Kellogg M. Brown," mumbled the patient. "But, doctor, do you think—"

"Send for him immediately. Your father, too, should be summoned; also your—"

"Say, doctor, do you really think I'm going to die?" The man began to blubber softly.

The doctor looked at him hard.

"No, I don't," he replied grimly. "There's nothing at all the matter with you. But I'd hate to be the only man you've made a fool of on a night like this."—Exchange.

A wizened little Irishman applied for a job loading a ship. At first they said he was too small, but he finally persuaded them to give him a trial. He seemed to be making good, and they gradually increased the size of his load until on the last trip he was carrying a 300-pound anvil under each arm. When he was half-way across the gangplank it broke and the Irishman fell in. With a great splashing and spluttering he came to the surface.

"T'row me a rope!" he shouted, and again sank. A second time he rose to the surface.

"T'row me a rope, I say!" he shouted again. Once more he sank. A third time he rose struggling.

"Say!" he spluttered angrily, "if one uv you shpalpeens don't hurry up an' t'row me a rope I'm goin' to drop one uv these damn tings!"—Selected.

A notable evidence of the value of "Kelene" (pure chloride of Ethyl) is found in the award at the Jamestown Exposition to Fries Bros., 92 Reade Street, New York, of a Gold Medal for their products, also for their Automatic and Medicinal Kelene Tubes. See advertising page.

Summary of Mortuary Reports for Nov., 1907.

TWENTY-FOUR TOWNS.

Aggregate population	231,600
Aggregate deaths	302
Representing temporary annual death-rate per 1,000	15.6

Causes of Death.

Typhoid fever	7
Scarlet fever	2
Malarial fever	6
Diphtheria	5
Whooping-cough	7
Pneumonia	33
Consumption	37
Brain diseases	30
Heart diseases	19
Neurotic diseases	14
Diarrhœal diseases	10
All other diseases	117
Accident	12
Suicide	1
Violence	2
Deaths under five years	88
Still-born	38

—Bulletin N. C. Board of Health.

A Case of Swine Erysipelas in Man Cured by the Use of Serum.—Welzel, (Munch. Med. Woch.) says that several cases have been reported in which human beings, usually veterinarians, have been infected with the bacilli of swine erysipelas. In performing the immunizations which are now done on a large scale, the antiserum is injected into the animal and also a very small amount of a pure culture of the bacilli. In doing this it not infrequently happens that the operator pricks or scratches himself, owing to the restlessness of the animal. Of five cases of this sort reported one ended fatally and the ordinary sur-

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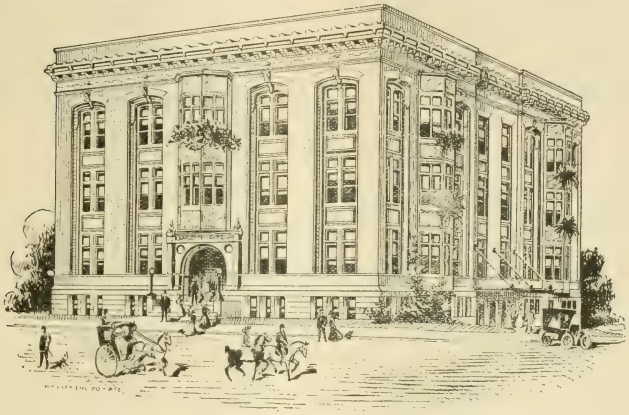

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Medical Society of the State of North Carolina meets in Winston-Salem, June, 16-19, 1908.

The Tri-State Medical Association of the Carolinas and Virginia (only members of State Societies eligible). Next Annual Meeting: Charleston, S. C. Date of meeting: To be fixed later 1909. President, Dr. Albert Anderson, Raleigh, N. C.; Secretary-Treasurer, Dr. J. Howell Way, Waynesville, N. C.

gical measures applied did not appear to modify the course of the disease in the others. Another veterinarian who accidentally inoculated himself promptly injected some of the immune serum, with the result that the symptmos quickly subsided. Welzel's own patient was a veterinarian who inoculated himself in the course of his work and manifested symptoms of a severe infection that threatened to become generalized. A single injection of the ordinary immune serum used for treating pigs sufficied to arrest the infection and produced almost instant relief in regard to both the pain and the local symptoms.

Acute Generalizing Peritonitis.—Carwardine, British Medical Journal, uses the term "generalizing peritonitis" to cover all those cases of rapidly spreading peritoneal infection, usually from a primary focus. The common sites of origin of such spreading peritonitis are the vermiform appendix, the uterine appendages, and the gastroduodenal region by reason of infection or perforation. Within the peritoneal cavity there are certain potential spaces which may become converted into pools by accumulation of fluid therein. Which of these spaces is primarily involved depends upon the site of origin, the effect of gravity, and the guiding direction of the viscera and omentum, both static and peristaltic. The accumulation of the infective fluid occupies the true pelvis; the omentum becomes fixed to the diseased focus, and tends to localize the fluid by forming an omental roof. The writer commends the practice of draining serous collections as well as the purulent ones, and if there be any apprehension of subsequent infection of any proximate favorite site, to anticipate this by putting a drainage tube into that area, the favorite pools being pelvic, right and left lumbar, and right and left subphernic. Two recent improvements in the treatment of these cases deserve notice. The Fowler position consists in placing the patient in the upright sitting position as soon as possible at the time of or immediately after operation, so that the peritoneal exudation may gravitate to the lower abdomen, where drainage is provided for, far away from the more dangerous epigastric areas. Murphy's treatment consists of (1) rapid removal of the focus of infection, with little disturbance of the peritonaeum, and closure of the hole in the gut; (2) drainage (a) suprapubic, (b) through the operation incision; (3) rapid operation, preferably through the rectum, and no sutures are put in; (4) no food is given by the mouth for two or three days; and (5) continuous saline infusions by the rectum. The object of these last is not to cause the bowels to act, but merely to keep a supply of a few inches of saline fluid always in the rectum.

Myelopathic Albumosuria.

Brown (Brit. Med. Jour.) reports the case of a Jewish man of fifty years, complaining for about a year with pains in the hands and legs. Later all over the body. Examination showed anemia, tenderness of the ribs on percussion, intense pain on being moved, some bronchitis, and an albuminous body in the urine. This latter body was determined to be the albumose described by Bence Jones. Hard nodules soon appeared on the ribs over the previous painful areas, hard movable glands in the right axilla, diarrhea set in, the urine became scanty, and the patient died in about a month. No autopsy was permitted. The author describes the tests leading to the detection of the albumose and believes the case to have been one of myelopathic albumosuria, or Kahler's disease. This form is always associated, the author believes, with diseases of the bone marrow. He denies that albumose is alimentary in origin because (1) proteolysis normally proceeds beyond this stage, the terminal products being hexone bases and amino acids; (2) the B.-J. albumose reactions are not identical with the digestive albumoses; (3) a considerable alteration of diet has no effect on the amount of proteid excreted (confirmed in the author's case); and (4) the alimentary view does not explain why marked and persistent albumosuria should appear in this particular variety of malignant disease. In this particular case the diagnosis was for a time obscured by the fact that there coexisted a true albuminuria with hyaline and granular casts. Death apparently resulted from a terminal pneumococcic infection.

Prevention of Scarlatinal Nephritis.

Thompson speaking in regard to the use of a prophylactic drug against the nephritis of scarlatina says that urotropin is the only one which has proved itself of value. Of 47 consecutive patients treated with this agent by the writer, not one had nephritis and only one exhibited albuminuria. These facts are considered encouraging enough by the author to suggest the further use of the drug in scarlatina. Patients treated with hexamethylenetetramine were less fortunate in escaping nephritis, and the writer holds this drug to be not an exact equivalent of urotropin when considered from the point of therapeutic results. It is suggested that all instances of scarlatina be treated from the beginning with 5-grain doses of urotropin three times a day for children up to twelve years; for patients above this age 7½ grains thrice daily are advised. Generous dilution of the drug with water is necessary and the treatment should be continued to the end of the twenty-eighth day of the disease.—Edinburgh Medical Journal.

The So-called Acquired Lymphangiomas of the Neck.

Dencks (Munch. Med. Woch.) states

that cavernous lymphangiomas of the neck are rather rare as a congenital condition, and are much more so as neoplasms appearing later in life. He has been able to find only six instances of the latter sort, and numerous authors, as a matter of fact, do divide the congenital and acquired lymphangiomas of the neck into two distinct classes. The author describes two cases of cystic lymphangioma first appearing during adult age, and as the result of the analysis of these, as well as of the other cases reported, he reaches the conclusion that the distinction between the congenital and so-called acquired growths is not tenable and that both genetically and morphologically the neoplasm is the same in each case. The germ of the new growth must be assumed as existing congenitally and the difference consists only in the time at which the growth becomes independent. While in most of the cervical lymphangiomas development occurs during intrauterine life, so that a tumor is already present at the birth of the fetus, in some instances the latent germ develops into a tumor only later in life. Why this peculiar course is sometimes observed cannot be explained, but it appears that the period of puberty has something to do with the development of the lymphangiomas, as is the case in the branchiogenetic cysts.

Spontaneous Aneurysm of the Popliteal Artery Treated by Extirpation.

Lediard (The Lancet) reports the case of a man of fifty-four years, laborer, who three months previous to coming under observation had strained his right knee and had had, subsequently, pain in the knee and calf while at work. Two weeks before admission to hospital a swelling came on the popliteal region and grew rapidly. When seen it was pulsating, fusiform, and expansile, while both thrill and murmur were present. Incision was made six inches long over the popliteal space, the artery dissected out, ligated above and below, and the segment exsected. Some difficulty arose in separating the popliteal vein from the aneurysmal sac. The patient made a good recovery and left the hospital in about three months, able to kneel slowly without pain and to walk with only a slight limp. Three months later he was able to walk several without a cane and to do light work, as gardener, etc. The author refers to recent literature on the subject of aneurysms.

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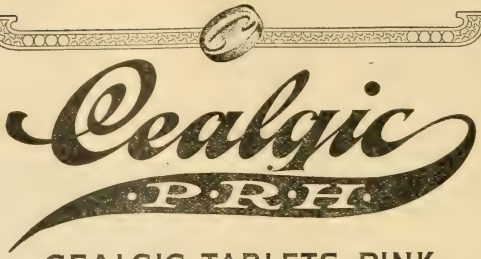

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The Cause, Pathology, and Treatment of Chronic Rheumatism.

Stockman calls attention to the fact that the symptoms arising from implication of the fibrous tissues about the bladder and thorax often cause much mental anxiety to patients. In the case of the bladder the symptoms consist in dull pain and increased frequency of micturition, but they usually pass off in about a week. When the intercostal muscles and the fibrous tissues of the ribs and sternum are affected, each inspiration may cause pain or discomfort, and if the respiration be deepened by effort, the pain may become acute and darting or stabbing in character. When the fibrous tissue behind the pharynx is affected, the symptoms are chiefly subjective; the patient feels as if the parts were slightly swollen, stiff, and uncomfortable; but little or nothing can be made out on inspection. It is not known whether the pains in the muscles and bones in acute muscular rheumatism are due solely to a true rheumatic infection or whether they occur with several febrile conditions. The general treatment is that of a slight feverish attack and recovery takes place in a few days. If the pains are widely spread over the body, rest in bed, light diet, saline purgation, mild diaphoretics or mild alkaline diuretics hasten recovery and give ease to the patient. Sodium salicylate, alone or with phenazone or phenacetin, greatly relieves the pain and aching; or methyl salicylate may be applied locally. The salicylates, however, do not exercise the same immediate specific action which they show in acute articular rheumatism. A hot bath, followed by a copious perspiration or a Turkish bath, with well-applied massage, if taken in time, may abort the attack. Very often in such an attack the chief site of the pain is localized in the lumbar region, shoulders, neck, chestwall, or lower extremities, and in these places, the painful area is often small and results from serious exudation. The best treatment is massage followed by passive and active movements. One thorough application may be all that is necessary. The parts are very tender, and manipulations must be begun very gently by stroking so as to get rid of the exudation and relieve tension. Little by little more pressure can be borne, first with the palm of the hand and then with the first or knuckles. The local inunction of methyl salicylate alone or mixed with an equal part of liquid paraffine, often relieves the pain, or a ten per cent. solution of menthol in liquid paraffine may be used. Local irritants, such as mustard leaves, are beneficial. In the case of chronic rheumatism, treatment is much more difficult and prolonged. Massage and exercises, the faradic current, and the injection of solution of chromic acid into any of the fibrous nodules, which are clearly enough defined for this treatment, are indicated. General massage is of no use. Treatment must be especially directed to any nodules and indurations which can be felt and to parts which are painful.—The Edinburgh Medical Journal.

Paroxysmal Tachycardia.

Barr (Brit. Med. Jour.) states that great frequency of the heart's action is a very common accompaniment of many morbid conditions, but the paroxysmal character of this affection, occurring in otherwise healthy subjects, at once marks it out as a particular entity, due, perhaps, to deranged physiological conditions, rather than to any morbific influence. The case reported is that of a youth who was suffering from tachycardia, the result of a blow on his epigastrium. He had another attack after another blow in the same place. The third attack followed overstrain from carrying a heavy load upstairs. Still a fourth attack followed an attempt to run away from a policeman. The writer at first associated the tachycardia with direct injury to the epigastrium, but in the light of the last two attacks he believes that the cause was acute cardiac strain. The very basis of these attacks lies in a hyperdistension of the right side of the heart, a hyperdistension which would quickly terminate the life of the patient were not the musculature in a healthy condition. During these paroxysms there was comparatively little cardiac distress, no anginal-like seizure, and no real dyspnœa. The patient could move about, and from his appearance no one would imagine that his heart was contracting over 250 times in a minute. If the heart were beating at this rate with a relatively low blood pressure, the distress and dyspnœa would be great. The patient would be bathed in perspiration, and death would quickly terminate the scene, but, fortunately, the regulative mechanism of Nature maintains the blood pressure, and with it the coronary circulation, until the right side of the heart gets rid of the load oppressing it. The writer sums up the treatment as follows: Put the patient in bed, freely use such agents as amylnitrite, nitroglycerin, etc., to lessen peripheral resistance and equalize the amount of blood in the two sides of the heart. Encourage the patient to take long, deep breaths, so as to aspirate the blood from the right side of the heart into the lungs, and thus give a better supply to the left ventricle. Counter-irritation might call into play the reflex cardiac contraction of Abrams. If, with this treatment, the hyper-

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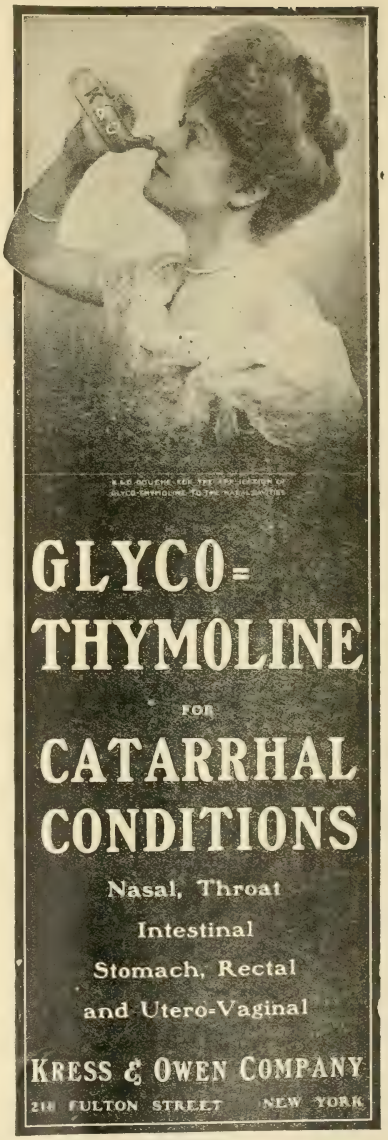

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distended right ventricle does not properly contract, then the addition of digitalis or of digitalin and strychnine is required. A good brisk purgative clears the portal circulation. The diet should be as dry as possible, so as to avoid the addition of fluid to the over-repleted veins and right side of the heart.

Atrophy of Both Testicles after Contusion.

Groussin had a patient, aged twenty years, who had had two attacks of mumps, one when he was six years old, and one when he was fourteen. It was eighteen months after the second attack that, in a fall from a wagon, he bruised the right testicle, which atrophied after two and a half months in bed. When he was twenty-one years old, he fell while climbing a mountain. The left testicle was pressed against a hard object in his pocket, and in its turn atrophied after two months in bed, made necessary by the traumatic orchitis which was induced. Groussin, when called to see the patient, tried injections of orchitic fluid. These injections seemed at first to yield some result on the left side, but were continued in vain. Later it will be possible to judge of any improvement, although it now appears doubtful if any will take place.—Le Bulletin Medical.

The Argyle Symptom and Meningitis Syphilitica.

Bertolotti has studied the relation of the Argyle-Robertson pupil to the lesions of syphilis. He concludes that syphilitic spinal paralysis, in the great majority of cases, begins with a meningitis. The Argyle-Robertson pupil may often be found in the progressive meningo-myelitis of syphilis; this tends to support the theory of Babinsky that this symptom is pathognomonic of acquired or hereditary syphilis of the nerve centers. The Argyle symptom is a phenomenon resulting from chronic syphilitic meningitis; this meningitis is the first symptom of all forms of syphilis of the nerve centers. It is not purely a symptom of tabes dorsalis, but may be found as well in general paralysis, cerebrospinal syphilis, hemiplegia, pseudo-bulbar paralysis, and meningo-myelitis of syphilitic origin.—Rivista Critica di Clinica Medica.

An Epidemic of Whooping Cough in the Very Young.

Porak and Durante (Arch. de Med. des Enf.) report an epidemic of whooping cough occurring in the Pavilion of the Premature of the Paris Maternity.

In this pavilion the premature infants are all wet-nursed, the mothers partially nursing their own children at the same time. Each woman nurses three premature infants, in addition to her own child.

It is ordinarily stated that pertussis is rather rare under two years, and that when it does occur in very early life the mortality is very high. Commenting on this fact, the authors call attention to the peculiarities of the epidemic observed by them.

There were forty-four premature infants in the pavilion during the time of the epi-

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demic. Among these, there occurred only one distinct case of pertussis. This case was fatal, however.

There were fourteen nurslings in the pavilion on mixed diet, as before explained. Of these, ten were attacked, the four who escaped being among the youngest infants of this class. The ages of the children varied from one to ten months, only one infant being over six months of age.

Seven of the ten cases showed pulmonary complications. In two of these cases there was merely a congestion of the lungs; in the other five there was a distinct bronchopneumonia.

In view of the prevailing opinion as to the mortality of pertussis in early life, it is important to note that not one of these ten cases proved fatal, despite the complications in seven of the cases.

The treatment employed consisted essentially in the use of belladonna and grindelia robusta for the pertussis proper, and in the use of cool baths, benzoate of soda and acetate of ammonia for the pulmonary complications.

The London Hospital.

Since this hospital was founded, more than 6,000,000 patients have been treated. Every day an average of fifty patients are operated on, and it is estimated that in the course of a year 1,500,000 pills, a ton of cough lozenges, a hundred miles of sticking plaster, and 3,000 leeches are used.—Exchange.

An Active Depletant for Pelvic Congestions.

The presence of congestion or inflammation, whether acute or chronic, involving the female pelvic cavity, forms grounds for anxiety. Fortunately we have passed the age where operative conclusions are hastily made. A superficial study of the vascular supply of the female pelvic organs, with its vesico-vaginal and vesico-uterine plexus forming a complete network of anastomosis, is sufficient to show that local applications of depleting agents to the vaginal and rectal canals form both practical and theoretical ideals in treatment which by purgative action reduces the stasis of engorged cellular tissue and lowers vascular tension, thus aiding nature in restoring normal glandular action. Glyco-Thymoline in contact with mucous membrane everywhere produces the following physiological activities in direct proportion to the vascularity of the structure: It stimulates the secreting cavity of glandular structure of all mucous surfaces, so that larger quantities of watery fluids are exuded. On the law of exosmosis, which determines the passage of fluids through animal membranes from a rare to a more dense saline medium, this solution through its stimulating and hygroscopic property brings about a rapid depletion, drawing outwardly through the tissues the products of inflammation and materially reducing the danger of septic infection. The following clinical case bears with interest on the subject: Chas. Le Cates, M.D., Philadelphia, Pa., reports: Mrs. A. consulted me in reference to her condition. Made a thorough examination and found uterus much enlarged, very turgid, degeneration of the endometrium, discharge rather profuse. Treatment: Hot vaginal douche 10 per cent. Glyco-Thymoline. I then irrigated the uterus with pure Glyco-Thymoline and tamponed the vagina with lamb's wool saturated with Glyco-Thymoline. This treatment was given twice and three times a week. Improvement was rapid, congestion was reduced and patient discharged in six weeks. I see the patient frequently and there has been no recurrence of former trouble.

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ment, and the digestibility of the meat is not affected by their removal. This must be considered as an absolute advancement. The product obtained is known by the name of Meatox.

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whatever. I know of no meat preparation which possesses such a high percentage of digestible nutriment as does Meatox.—By Dr. H. Endemann, of New York; Abstract from Der Hausdoktor, April, 1908.

Whilst the formula of Tyree's Antiseptic Powder is known to every practitioner, we deem this an opportune moment to submit, as additional evidence of its incomparable value, the views of those whose judgment of therapeutic agents of this class is universally accepted as authoritative in the highest degree. The confirmatory findings of such eminent authorities as Professor Kalusowski of the George Washington University, Washington, D. C., and Professor William M. Gray, of the Army Medical Museum, Washington, D. C., and the opinions, based upon repeated clinical tests, expressed by exacting and conservative practitioners, are, we believe, sufficient to establish the contention that Tyree's Antiseptic Powder is superior to any other product of a kindred nature, and that it affords results which cannot be obtained by the employment of its components when they are extemporaneously combined. A trial package will be mailed free of charge to physicians if they will send their name and address to Mr. J. S. Tyree, Chemist, Washington, D. C.

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The Treatment of Tetany with Parathyroid Preparations.--Loewenthal and Wiebrecht (Deutsche Zeitscrift f. Nervenheilkunde), based upon numerous experiments, arrive at the conclusions that many cases of tetany are favorably influenced by feeding with thyroid and parathyroid gland. This favorable effect is due to the amount of parathyroid substance in the administered glands. In contrrdistinction to healthy individuals, these patients present no diminution of the body weight, or signs of thyroidism, as a result of the medication. Congenital cases of latent tetany are based upon aphasia or functional weakness of the parathyroids, becoming manifestly tetanic as soon as the chemical equilibrium of the organism is disturbed by toxic or infectious interventions.

One of the patients observed and treated by the authors was a woman about 40 years of age, who had suffered from a goitre since childhood. When she was 28 years old, rigidity of the hands was first noted, followed by severe spasms at the age of 37. Two years later, tetanic seizures and a psychical alteration made their appearance, together with emaciation and a loss of strength. Removal of the right lobe of the thyroid gland was followed by improvement of the tachycardia and the general condition, but soon afterwards the tetanic disturbances increased, and were complicated by attacks of diarrhea. Administration of thyroidin and rodagen brought only temporary improvement. In addition to the symptoms of tetany, the patient presented certain signs of Graves' disease, such as tremor, hyperidrosis, diarrhea, struma. A rapid subsidence of the tetanic attacks was observed to follow the administration of fresh thyroid and parathyroid glands. When the daily dosage of the powdered gland had been raised to 0.75 g. each day, the patient became entirely free from attacks, which returned as soon as the dose was diminished to 0.3 g., disappearing again with the elevation of the dose. It was gradually demonstrated, through repeated experimentation with pure thyroid and parathyroid substance, that the therapeutic effect is exclusively due to the ingestion of parathyroid substance. The symptoms of Graves' disease, and the psychic disturbances, were not affected by the parathyroid medication, which modified the tetanic manifestations alone. The same method of treatment failed in another case of tetany

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The Pathogenesis of Hirschsprung's Disease.

Neter (Munchener medizinische Wochenschrift) says that in spite of the numerous modifications which the conception of this affection has undergone in the last few years, it may be defined as being a type of constipation appearing in earliest infancy, often during the first days of life, that is extremely obstinate, and is not rarely fatal. Anatomically there is always found a marked dilatation of the lower portion of the colon, particularly of the sigmoid flexure, and usually also an abnormal dilatation of this portion of the intestine. Hirschsprung assumed that the dilatation and hypertrophy of the sigmoid were congenital, but some observers had advocated the view that there is a congenital dilatation of the lower portion of the colon with aplasia of the musculature. Others have believed in an idiopathic dilatation of the colon or in deficient tonus of a normal muscular wall in consequence of inadequate innervation. The author is of the opinion that the fundamental condition leading to the development of Hirschsprung's disease consists in an abnormal length of the sigmoid and that the dilatation and hypertrophy are second-

ary and not congenital changes. A case in point is reported which the author regards as affording evidence in favor of his theory.

Birth Traumatism and Epilepsy.—Volland (Allgem. Ztschrft. j. Psych.) among 1500 artificial labors, was enabled to deterine the existence of epilepsy in 45 patients, of 3 per cent. of the cases. Besides abnormal labor, faulty heredity as sisted in the production of the epilepsy in 13 cases. Tuberculosis of the immediate or remote progenitors was noted in six cases. Only three patients presented changes of the skull, which could be positively referred to traumatic influences at the time of birth. In seven cases, without psychopathic heredity, there was infantile cerebral palsy, usually appearing in the course of the first to second year. together with the epilepsy. The traumatic injuries at the time of birth apparently create a predisposition of the brain for the evolution of the encephalitic process. In proportion to the great frequency of epilepsy, however, birth traumatism plays only a minor part in the etiology of this disease. It is probably to be regarded as a preparatory cause of the subsequent epilepsy in a small number of cases.

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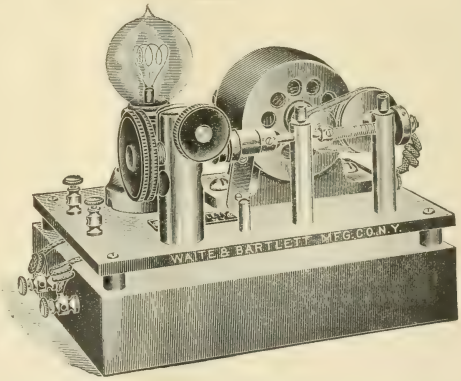

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Hallucination.—McDonald (The Glasgow Medical Journal) speaks of hallucinations. He remarks that the student of history cannot help being struck by the part played by hallucinations in the story of human progress. In the annals of every nation, even from the remotest periods, we meet with hallucinatory episodes affecting the trend of popular thought and belief, and directing the conduct of the people. In some instances we find that the hallucinations pertain to a particular individual, who interprets the hallucination as a mysterious, divine revelation, an interpretation which begetting in its turn the secret belief in a divine mission, dominates the consciousness, leads to concentration of thought, a determination of purpose, and an accumulation of energy that urges on the hallucinated being to a realization of his dream, and sometimes makes him a leader of men. Thus, we find Joan of Arc in the history of France. But history also furnishes instances of hallucinations effecting masses of humanity. As example the author cites the hallucinatory epidemics that affected whole communities and armies during the holy wars, and here also one individual, Peter the Hermit of Amiens. Biographers relate hallucinatory episodes in the lives of many illustrious men of all times, some of them men of undoubted genius. Martin Luther, according to the evidence of his own writings, was undoubtedly subject to auditory hallucinations. So also was George Fox, the founder of the Society of Friends. Socrates, the ancient Grecian philosopher, is judged to have been the victim of hallucinations. Descartes, after long confinement, was followed by an invisible person calling upon him to pursue the search of truth. It is recorded by Lombroso that Von Helmont declared he saw a guardian angel appear to him in all the most important events in his life. Napoleon was said to have had interviews with a familar spirit in the form of a little red man, and he asserted he saw his star in every great occurrence. Oliver Cromwell, while lying tired and sleepless in bed, had an apparition of the gigantic figure of a lady who told him he would be the greatest man in England. Johnson when at Oxford one day heard his mother distinctly call "Sam," though she was then at Lichfield. Cowper was one day found by his medical attendant with a penknife sticking in his side. He believed he had heard a voice from heaven commanding him to take his own life. Pope one day asked the doctor attending him what was the arm which seemed to come out of the wall. Byron occasionally fancied he was visited by a spectre, but regarded it as the effect of an overstimulated brain. Goethe stated that one day he saw the exact counterpart of himself coming towards him. These are but a few out of many instances in the lives of great men in whom the existence of hallucinations seems to have been well established by the evidence of the facts. Hallucination should be defended as a subjective perception, a perception without a corresponding objective stimulus. Hallucinations of hearing are those which we meet with most frequently among the insane. They vary in character from simple noises, rumblings, moanings, hissings, whistlings, tinklings, musical sounds, barks growls, cries, to the most complex of woods and sentences. Hallucinations of sights may assume the most diverse forms. The most elementary appear as mere blurs, clouds, sparks, flashes of light, while in the more complex, faces, persons, every variety of object and scene may be portrayed in detail. Sometimes they are very indefinite, colorless, and phantomlike; at other times they are very vivid, highly colored, and stand out in bold relief. Hallucinations of smell are not at all uncommon, and patients often complain that they smell poisonous gases, chloroform, iodoform, fæces, putrefying substances, dead bodies, seminal discharges, etc. Hallucinations of taste also occur, as when the patient tells us that he detects poison, blood, fæces, etc., in his food. Hallucinations of touch may be referred to any point in the body. They vary in character and intensity from creeping, pricking, cold, and burning sensations, to electric shocks, caresses, stabs, blows, bites, and injuries of all kinds. The author reviews the theories about hallucination. He believes that the theory of the peripheral origin of hallucination holds good in some, but not in all, instances. Even when the primary stimulus occurs without the cerebrum, hallucinations are produced only after the censory centres, which are the seat of images, have been stimulated. A hallucination is never an entirely new creation of the brain, but simply a reproduction of memory images, and, in cases where the hallucination seems new, strange, and enigmatical, we have to deal merely with a new combination of its component elements. So also in dreams, which are the hallucinations of the sleeping state. It is an interesting and remarkable fact that hallucinations vary in different races and at different periods of history according to the knowledge and the dominant ideas of the day and the people. The ancient Greek who had visual hallucinations saw gods and godesses, satyrs, driads, and nymphs. The hallucinated individual of the middle ages had visions of saints and guardian

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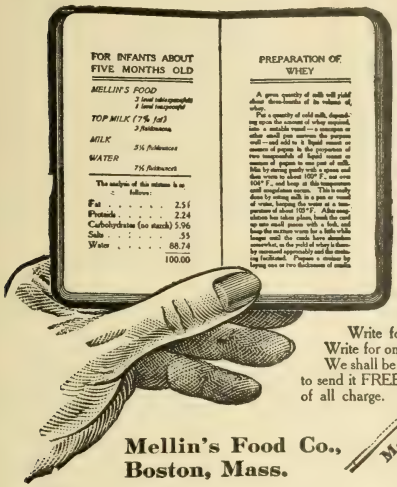
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angels, or saw the devil, after the manner of that day, with horns, a goat's head, an arrow headed tail, and a pitchfork. In these later days visions of heaven or hell are more Miltonic in character, and with the wider diffusion of knowledge and the practical tendencies of advanceing civilization they are becoming less frequent and less definite than they used to be. So, too, in the case of auditory hallucinations. In earlier times the hallucinatory voices were interpreted as those of celestial beings or spirits. Then the introduction of speaking tubes afforded a new explanation, and the sufferer was convinced that a secret system of tubes existed in the walls of his apartments. The introduction of the telegraph and then of the telephone was followed by the transference of the voices to wires hidden in the walls, while in these days it is no uncommon thing to find the victim of auditory hallucinations who declares that he is constantly receiving marconigrams and wireless messages. The author concludes that no doubt a hallucination is an abnormal cerebral product, and if it were possible to divide mankind into two categories, those of sound mind and those of sound mind and those of unsound mind, we should have no option left but to include

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the hallucinated with the unsound. Such a division is, however, impossible. Sanity and insanity are comparative terms. Each individual has a normal peculiar to himself, and applicable to none other. Any attempt to make a division between sanity and insanity must be artificial and conventional in the highest degree. The existence of hallucination is certainly no criterion of insanity. We can, however, agree that when the subject of hallucinations fails to recognize these as anomalous productions productions of his brain, and allows his thoughts to be directed from their ordinary course, and his conduct to be regulated by the hallucinatory mental content, he is no longer of sound mind.

Colon Infection of the Urinary Tract.—Dudgeon (Lancet) states that in most acute infections of the urinary tract due to the colon bacillus, the onset is sudden, a chill being the first indication. The fever may reach 104 deg. to 105 deg. F. There is frequency of micturition, with pain, and the passage of small quantities. Nausea and vomiting are often present. Tenderness of both kidneys may be detected, usually much more marked on one side. In some cases the spleen is definitely enlarged, which, with the fever, may lead to a diagnosis of typhoid fever. The urine is acid and turbid from the presence of bacilli. In the chronic cases the symptoms may vary from a few apparently unimportant facts to a condition of considerable severity. In women the bacillus coli may multiply in the urine, causing bacilluria and sometimes pyuria, without causing any symptoms pointing to an infection of the urinary tract. When fever occurs in such cases the diagnosis is apt to be malaria, tuberculosis, or influenza. In men such cases are less common. So-called gouty urethritis may be due to an infection of the urine and urethral mucous membrane by the bacillus coli. Incontinence of urine in children is sometimes associated with the presence of bacilli in the urine. In by far the larger number of cases the urine is acid. The presence of colon bacilli in sufficiently large numbers to give rise to turbidity causes a characteristic "shimmering" appearance. A nucleoproteid substance is present in the urine in most cases, usually albumin. Casts do not occur in uncomplicated cases. That the colon bacillus is often present in apparently normal urine is shown by its being found in the urine of ten out of forty-five cases of pregnancy, in four out of twenty cases of peritonitis, and in five out of fourteen cases of prostatic enlargement. These facts serve to explain how infection of the urinary tract may occur. There is no evidence that the urine in these cases contains either an excess or a deficiency in opsonins—the substances which render the bacilli more or less susceptible to phagocytosis. That there is little systemic immunity is shown by the fact that it is extremely rare to obtain a well marked agglutination reaction of the colon bacillus with sera obtained from all classes of cases of bacillus coli infection. Indeed, in most instances patients suffering from an infection of the urinary tract due to the bacillus coli, whether it is acute or chronic, show a low opsonic and phagocytic index. The prognosis of the acute cases is usually excellent, as long as the infection remains uncomplicated. As regards treatment, medicinal treatment is of little, if any, avail. Urotropin, which produces such wonderful results in other classes of cases, is useless here. Cure, when it occurs, is usually spontaneous. Good results have, however, been obtained in the acute cases with anti-colon bacillus serum. In five out of twelve cases the results were rapid and permanent, while in four more considerable benefit ensued. In the subacute cases the serum is also useful, but not so much so as in the acute cases. Twenty-five cubic centimeters of the serum should be given each day for three days. Calcium lactate in doses of twenty grains three times a day will diminish the objectionable effects of the serum, such as joint pains and rashes. In chronic cases the Wright treatment by means of vaccines should be tried. Unfortunately the cases due to the colon bacillus do not give as satisfactory results as are obtained in the case of staphylococcus aureus and albus.

The Prophylaxis of Ophthalmia in the Newborn.

Seefelder (Munchener medizinische Wochenschrift) speaks highly of the value of silver acetate as a substitute for silver nitrate as a prophylactic against ophthalmia in infants. The efficiency of this agent is as great as that of the nitrate, while it seems to have no disadvantages. In a series of 500 infants the author applied the acetate to one eye and the nitrate to the other and found that in no case were any evidences of irritation caused by the acetate. There was also no demonstrable damage to the corneal epithelium and the conjunctiva did not offer any indications of undue stimulation. He therefore considers that silver acetate is not inferior to the nitrate in its action, while it possesses the advantage that its solutions do not become more concentrated through evaporation, whereas, with silver nitrate, a change of this nature may lead to serious consequences.

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Length of Time in Bed After Physiological Labor.

Bouchacourt (La Presse Med.) discusses the time that it is necessary for a patient delivered normally and having a normal puerperium to remain in bed. The length of this time differs in different countries and nations from a few hours to several weeks. Among savage nations it is well known that the mother is confined when on the march, accomplishes her own delivery, and goes on her way with the others. In some country districts it is a matter of emulation among the women to remain in bed as little time as possible before undertaking all the household work, and yet there seem to be few bad results. Among the richer classes, on the contrary, it is the habit to remain in bed a month, and it is difficult to get the patient to leave her bed. The consensus of opinion at the present day seems to be that it is best, in order to secure perfect involution, to remain in bed from two to three weeks, and to return gradually to the ordinary duties of life.

Treatment of Pruritus.

Tremolieres (Presse Medicale) prescribes treatment primarily according to ætiology. Among causes of pruritus he enumerates: the repair of wounds, the unequal pressure of clothing, parasites, bad personal hygiene, cold, heat, atmospheric pressure; depression of the nervous system (senile pruritus), functional disturbances and lesions of cutaneous tissues, particularly varices, alterations in the blood, poisoning by alcohol or other drugs or by certain foods, such as pork and fish; indigestion, constipation, gout, obesity, Bright's disease, hepatitis, icterus; and, finally, definite lesions of the nervous system. Prophylaxis, therefore, is of the greatest importance. As internal remedies, carbolic acid in pills of one and a half grains each, gelsemium, valerian, atropine sulphate or valerianate, arsenic, lactic acid have all been used with varying success. Externally, hot lotions, twice daily, are efficacious with a mild ointment followed by a dusting powder. A favorite French formula for a lotion will be found in Therapeutical Notes. Starch and salol mixtures are contraindicated. Electricity, in its various forms, is coming into common use. Scarification is sometimes successful and relief has followed resection of a nerve.

Extra-Uterine Gestation.

Croom (Practitioner) does not believe such a condition as primary abdominal pregnancy occurs. Such a thing as ovarian pregnancy is extremely rare if it exists. Pregnancy occurring in the Fallopian tube may be interstitial, infundibular or ampullar. The interstitial variety may be either primary or secondary, caused by the invasion of the uterine wall by a growing tubal pregnancy, In this condition rupture is inevitable and usually takes place about the fifth month and is uniformly fatal. The infundibular form may terminate in what is known as "tubal abortion," sometimes accompanied with severe hemorrhage, or the ovum may remain fixed in the shape of a mole, or may have the same life-history as the ampullar variety.

The ampullar may rupture during the second or third week, causing only slight symptoms. On the other hand, it may go on developing and getting more vascular andrupture from the eighth to the twelfth week. The rupture may occur either into the broad ligament or into the peritoneal cavity, and be followed by severe hemorrhage and rapid death unless quickly operated upon. In making the diagnosis we take into consideration the subjective signs of pregnancy, which may be exaggerated; next we consider the length of time since the last child was born, which is generally a long interval. Another point is that there will often be some utero-ovarian disease. The next point is the amenorrhea, followed by irregular hemorrhages, while another symptom is the localized pelvic pain, paroxysmal and confined chiefly to the side of the gestation. Upon local examination you find a tense, cystic tumor upon one side of the uterus, which pulsates and is sensitive to the touch. The uterus is enlarged and increases in size up to the third month. The cervix is patulous. The decidua is thrown off from the uterus at the third month; it may come away either entire or in shreds. The expulsion of the decidua is the most striking sign, if not the pathognomonic sign of extra-uterine pregnancy. If rupture occurs into the peritoneal cavity the symptoms will be acute and sudden; there is always agonizing pain; there will be the indications of internal hemorrheag, presenting the usual features—shock, syncope and death. When this occurs operate at once. If the rupture occurs into the broad ligament the symptoms are much less severe. When the diagnosis of ectopic gestation is made, the sooner the gestation-sac is removed the better; after rupture, where life is threatened, it is essential.

Rupture of the Uterus During Labor.

Grimsdale (Jour. Obst. and Gyn.) reports a case of rupture of the uterus occurring during labor successfully treated by abdominal hysterectomy. He believes that when this condition occurs it is safest in the long run to use bold measures of treatment, as one does not know how much damage has

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been done or how much the peritoneum has been soiled, until the abdomen is opened.

Symptoms of Cancer of the Stomach.

Marelli (Gazetta degli Ospedali e Delle Cliniche) discusses the variety of symptoms presented by patients with cancer of the stomach. Dyspepsia, dilatation of the stomach, gastric atrophy, chronic gastritis, gastric ulcer, stenosis of the pylorus, localized peritonitis, etc., all have symptoms which resemble beginning cancer of the stomach, and even anæmia, leucæmia, malaria, hysteria, and other diseases may simulate cancerous involvement of the gastric tissue. The presence of a tumor is always a diagnostic sign of great value, especially when accompanied by other characteristic symptoms. It must be remembered, however, that cancer of the stomach is a disease which varies so greatly in its manifestations, that it cannot be described under a single schedule of symptoms. In support of this the author cites four cases, which are peculiar in their symptomatology.

In the first case reported none of the characteristic changes was found on examination of the gastric juice, and the picture of the disease greatly resembled anæmia due to ulcer of the stomach. There was, however, a change of taste; an aversion for meat; an absence of the characteristic shooting pain, etc.; which suggested something else than ulcer. The second case was noteworthy on account of the absolute absence of vomiting which logically would be ex-

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pected in this instance, on account of the pyloric stenosis. In the third case there was a very marked anæmia, but no definite signs on the part of the stomach, except a slight difficulty in digesting solid food and a continuous dull pain between the scapulæ.

In the fourth case, there was an intermittent febrile movement, a very rare symptom in cancer of the stomach. The fever was due probably to the toxines of cancer, but until we know the cause of carcinoma, we cannot tell the true cause of this rise of temperature.

Erythraemia.

Osler (Lancet) reports a case of erythræmia—a disease characterized by cyanosis, enlargement of the spleen, and a condition of polycythæmia. The hands, feet, and face are cyanotic and of a dusky hue. The vasomotor instability is very marked, the hands and feet becoming dark blue when kept in a dependent position. The skin shows just the opposite condition to the *tache cerebrale*—along the line of irritation there is a vasomotor constriction in the small arterioles, and the line stands out as a band of anæmia. The spleen is usually markedly enlarged and its notch can be readily felt. The blood flows in a large drop from the finger or ear when pricked, and is sensibly richer in color and unusually viscid. For the recognition of the disease a blood count is necessary, not simply a blood examination, as in leucæmia. The essential feature—the polycythæmia—can be determined only by counting the number of red corpuscles in a cubic millimetre of blood. A true polyæmia, a plethora vera, is present. Many other additional symptoms have been noted, such as pains in the hands and feet, headache, and constipation. High blood pressure is the rule and sclerosis of the superficial arteries and a trace of albumin in the urine have been frequently observed. Post mortem, the following anatomical changes are found: A plethora vera; intense hyperplasia of the bone marrow, a myelomatosis rubra; and enlargement of the spleen, with histological changes, indicative of chronic passive congestion, a uniform hyperplasia of all its elements. It may be that the spleen participates actively in the process; neither it nor the lymph glands lose their power of making red blood corpuscles. But the essence of the disease is still a mystery, the over supply of red corpuscles, without any corresponding demand. Very little is known about the treatment of the disease. As a long experience with leucæmia has demonstrated, we have nothing at our disposal which controls the morbid processes in the bone marrow. When there are fullness of the head and vertigo, repeated bleedings often give great relief. Inhalations of oxygen are stated to have been very beneficial in some cases, relieving the cyanosis and diminishing the number of red corpuscles, which in some cases rises as high as 12,000,000 corpuscles per cubic millimetre, over double the normal.

Arteritis Obliterans.

Weber (Lancet) reports the case of a Russian Jew, aged forty-two years, suffering from obliterating arteritis of the left lower extremity, with intermittent claudication (*angina cruris*). His chief complaint was of cramplike pains in the inner part of the sole of the left foot (muscles of the instep) or in the calf of the left leg, which always attacked him after he had walked for three or four minutes, and obliged him to rest for a few minutes before going on. No pulsation could be felt in the arteries of the left foot. The essential cause of the arterial disease in these cases is unknown; possibly it is due to imperfect development. There is great analogy between the phenomena of arterial obstruction in the leg and those of angina pectoris. Just as there are cases of angina pectoris (pseudoangina) without organic disease of the coronary arteries, so there are probably also cases of intermittent claudication of the extremities without organic arterial disease—a *dysbasia intermittens angiospastica*, in contradistinction to *dysbasia intermittens arteriosclerotica*.

Preparation of Catgut.

Lister (British Medical Journal) states that catgut used for surgical purposes should fulfill the following conditions: It should, after soaking in water or blood serum, be strong enough to bear any strain to which it may be subjected, and should hold perfectly when tied in a reef knot. It must not be so rigid as it lies among the tissues as to have any chance of working its way out by mechanical irritation. Nor should it be too quickly absorbed, but should be consumed so slowly by the cells of the new tissue that grows at its expense that, in the case of the ligature of an arterial trunk in its continuity, it may serve sufficiently long as a support for the substitute living thread in its embryonic condition. At the same time it is essential that the catgut be securely aseptic when applied. Chromium sulphate is an ideal substance for the preparation of catgut, with the exception that it is utterly untrustworthy as a germicide. This defect is easily remedied by the addition of a little corrosive sublimate. The preparing liquid must be twenty times the weight of the catgut, and is prepared by mixing the following solutions: (a) Corrosive sublimate, 2 grains; distilled water, 320 minims.

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(b) Chromic acid, 4 grains; distilled water, 240 minims; to which is added enough sulphurous acid to give a green color. The catgut is kept twenty-four hours in the preparing liquid and is then dried on the stretch. But while the substance of the catgut is antiseptic as well as aseptic, its dry surface is liable to contamination by contact with septic material, and it is essential that, before being used, it is washed with some trustworthy germicidal liquid. The writer puts the catgut, like the instruments, in 1 to 20 solution of carbolic acid about a quarter of an hour before the operation is begun.

Passage of Food Through the Pylorus.

Hertz (British Medical Journal) as a result of his studies, concludes that the passage of food through the pylorus is not regulated by reflexes from the duodenum alone. When solid masses in the food are carried against the pylorus, it closes and remains closed for a time. The result is that indigestible masses remain in the stomach until all the fluid and semifluid contents have left, so that more time is given to the gastric juice to soften and break up the insufficiently chewed food. By a similar protective mechanism, fluids at higher or lower temperatures than that of the body leave the stomach less rapidly. So that the stomach has a function which is not generally recognized; it protects the duodenum from

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abnormal stimuli by retaining food until it is changed so as to be less injurious to the delicate intestinal mucous membranes. Proper chewing will spare the stomach most of its work; it will divide the food into fine particles, dilute it, and bring it to body temperature. Stasis of food in pyloric ulcer is usually thought to be due to reflex spasm of the pylorus. More probably it is due to reflex inhibition of the relaxation which normally occurs on the arrival of a peristaltic wave. Indeed, it is doubtful whether spasm of the pylorus ever occurs.

Conveyance of Whooping Cough.

Macewen (British Medical Journal) by feeding a cat on sputum and vomited material from cases of whooping cough, found that two weeks later the animal became languid; after two weeks more it developed a choking cough which was always followed by vomiting, and still later a spasmodic cough with a well marked whoop. The conclusions drawn are as follows: 1. Whooping cough is beyond doubt an infectious disease. 2. The specific virus is contained in the sputum, or vomited material, or both. 3. Infection may take place either during the process of swallowing or by ingestion of the infective agent. 4. Cats are susceptible to whooping cough, and may therefore occasionally be the means of disseminating the disease.

Syphilis and Locomotor Ataxia.

Mott (British Medical Journal) accepts the Spirochæta pallida as the specific virus of syphilis, and suggests that it may vary in its virulence and toxicity, not every variety producing the special neurotoxine. Some forms of the protozoon may be attenuated in their virulence, owing to the passage of the organism through the bodies of certain individuals. The writer holds that syphilis is the essential cause of locomotor ataxia and general paralysis. Among the facts on which he bases his belief are the following: 1. Erb's statistics. 2. The cerebrospinal fluid of tabes, general paralysis, and syphilitic meningitis invariably contains lymphocytes and no polymorphonuclears. This occurs in no other chronic affection of the nervous system, except sleeping sickness. 3. Antisyphilitic bodies exist in the serum and cerebrospinal fluid of tabes and general paralysis, the quantity increasing in amount as the disease progresses. 4. Primary chancres are exceedingly rare in early paralytics, in spite of the promiscuous sexual intercourse so frequently observed among them. 5. In 80 per cent. of forty cases of juvenile general paralysis, the writer found syphilitic antecedents. 6. The Argyll Robertson pupil and the irregular pupil are practically only met with in general paralysis, tabes, and syphilis; it may be the sole sign of syphilis. Parasyphilitic disease of the nervous system depends upon two factors: intrinsic, innate, and extrinsic, acquired—the soil and the seed; the vital resistance and the specificity of the virus. All those conditions, which may be inherited or acquired, and which tend to active metabolism of systems, communities, and groups of neurons functionally correlated, and which, owing to those conditions of stress which in one individual would cause spinal neurasthenia, will, in conjunction with the stimulating effect of the syphilitic poison, cause the nerve cells to exercise an abnormal metabolic activity in the production of the side chain molecules necessary for immunization against the toxic effects of the virus. The frequent indulgence of abnormally strong sexual desires, stimulated by many causes, especially alcohol is, after syphilis, the most important factor in the production of tabes and general paralysis. It acts in two ways: (1) Directly, by exhaustion of neuropotential; (2) indirectly, in the male by the excessive loss to the body of highly phosphorized nucleoproteids contained in the sperm. These are biochemical substances possessed of great specific energy and not easily replaced.

Typhoid Carriers.

Ledingham and Ledingham (Brit. Med. Jour.) in investigating ninety women, found three of them to be "typhoid carriers"—i. e., while in good health themselves, they constantly excreted typhoid bacilli in their stools, and so were dangerous sources of infection. It is probable that in these cases the bacilli vegetate in the gallbladder, from which they are intermittently ejected into the intestine. No so called intestinal and urinary antiseptics seemed to have any effect. Such persons should be kept constantly under bacteriological supervision. Dehler actually performed cholecystostomy and drainage of the gallbladder on two asylum carrier cases, though in neither were there any symptoms pointing to disease of the gallbladder. In a few months the typhoid bacilli disappeared from the fæces, and the blood lost its power of agglutinating typhoid bacilli.

Knee Joint Injuries.

Bennett (British Medical Journal) discusses the various modifications of movement at the knee which occur either immediately after an injury or supervene after an interval without the intervention of any organic disease of the joint. Complete locking of the joint immediately after injury is usually due to some mechanical obstacle. The commonest cause is displacement of one or both semilunar cartilages, especially

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The book is full of useful information on the nursing of fever patients, which means a good part of the treatment of such cases. The book should, therefore, meet with a favorable reception at the hands of the medical profession.—Canada Lancet.

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in patients under thirty-five years of age. Hypertrophied synovial fringes give rise to obstruction in older subjects. Other causes are an abnormal flap of synovial membrane, underlying and adherent to the patella, completely loose bodies ("loose cartilages"), bodies attached by a long pedicle, pieces of bone broken off from the condyles of the femur. Apparently complete locking of the knee joint, in the absence of anæsthesia, may be due to muscular spasm secondary to pain. In all cases an anæsthetic should be given as soon as possible, in order to determine how much of the limitation of movement is due to muscular spasm.

Post Hemorrhagic Anemia.

The anemia which follows the hemorrhages of trauma, gastric, or intestinal ulcers, severe epistaxis, child birth, profuse menstruation or hemorrhoids presents a clinical picture that is so well-known that it requires no description.

Examination of the blood immediately after a severe hemorrhage usually shows no apparent change in its number of corpuscles, for the portion lost withdrew the blood as a whole, and the portion remaining in the body, while decreased in volume, will be found to contain a normal ratio of the fluid and cells. Shortly after a hemorrhage, however, the tissues of the body give up large quantities of fluid to restore the necessary volume of the blood and a condition of true hydremia ensues. Examination of the blood three or four hours after a severe hemorrhage, therefore, shows a very marked oligocythemia. Reconstruction must now take place and the response to the bodily demand is sometimes remarkably prompt, but in most instances it is a hard up-hill fight. This is to be expected, for the disproportion between the cells and the fluid elements of the blood, and the essential depression of all vital functions, makes recuperation a difficult process at best.

Much can be done, however, to assist the body in its efforts to restore normal conditions. The first and most essential requirement is absolute rest in a prone position. In some instances, it may be necessary for a few days to have the couch or bed tilted so that the patient's head shall be lower than the feet. Sudden movements or a sudden rising to an upright posture must be strictly interdicted as these are always liable to produce a fatal syncope. Following severe hemorrhage, the blood pressure is always lowered, and even if a certain degree of tension is apparently restored, it is very unstable, and may be lost instantly with all of the resulting dangers on the heart and central nervous system.

Another precaution to be taken is to frequently change the patient's posture from one side to the other. The hydremic state of the blood, and the loss of blood tension predisposes to gravitation œdema in the lungs and other organs, and the simple procedure of changing the patient's position often avoids annoying and serious complications.

Considerable quantities of water are always necessary after hemorrhage, but it should never be given in large amounts at any one time. Two or three tablespoonfuls at a time by the mouth every few minutes is much more beneficial than to allow a patient to drink to satiation. Excessive thirst is always soon controlled by small enemas (one pint) of saline solution, as warm as can be borne, repeated every three or four hours. These also serve admirably to very materially raise arterial tension. It is no uncommon thing to observe complete anuria for even twenty-four hours after severe hemorrhages, but the warm saline enemas soon correct this condition.

Feeding is one of the most important details in post-hemorrhagic treatment. Liquid food should be used in preference to solids for obvious reasons, and may consist of milk, beef extracts, white of eggs, etc. Small quantities should be given at short intervals, as it must be remembered that the digestive function is always more or less depressed and can only do a portion of its usual work. A good reliable hematic is early necessary, one that can materially hasten hematosis without endangering the digestive and assimilative functions in any way, shape, or fashion. Pepto-Mangan (Gude) is one of the most dependable remedies of this class and its hematopoietic properties are well-known. Under its use the cellular elements of the blood are rapidly increased, and the whole physical condition is greatly improved. The various organs resume their functions and the distressing and dangerous effects of hemorrhage are safely and properly overcome.

Irritable Bladder.

The condition commonly spoken of as bladder-irritability is often very troublesome, and not infrequently difficult to relieve. The causes are many, but in every instance the primary object to be sought in treatment is to render the urine bland and antiseptic. Of the remedies that have been suggested for this purpose, none gives more prompt and satisfactory relief than cystogen-lithia. The use of this product is quickly followed by a change in the character of the urine, and an alleviation of the irritable condition of the mucous membrane. Micturition becomes less frequent and the smarting and burning disappear. Cystogen-lithia is particularly useful in conditions where the bladder does not completely empty itself.—Int. Journal of Surgery.

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Clinical Popularity.

Llewellyn Eliot, A.M., M.D., Surgeon to Providence Hospital and Eastern Dispensary, and President of the Medical Association of the District of Columbia, etc., Washington, D. C., in an article read before the Section on Obstetrics, said: "In irrigating these cases, we may use the solution of bichloride of mercury, carbolic acid or any other medication which individual preference may suggest; for my part, I employ a solution of Tyree's Antiseptic Powder, which is non-poisonous." What can better attest its high reputation than the fact that recognition is given by so high an authority? A trial package will be mailed free of charge to physicians if they will send their name and address to Mr. J. S. Tyree, Chemist, Washington, D. C.

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Heat dilates the blood-vessels, but to be effective it must extend to the periphery of the infected area, when it will not cause suppuration by increasing the bacteria. An antiseptic poultice is the best method of conveying heat. There is but one method of poulticing which commends itself to thinking physicians, and that is with the antiseptic, hygroscopic, plastic dressing—

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properties far above the ordinary, break the bound of local environment and find their way into the outer world. The famous Buffalo Lithia Spring in Virginia is a familiar and notable example. Years ago its extraordinary curative power in the treatment of rheumatism and gout was discovered by persons living in the vicinity. Medical men tested it und confirmed its merits; its fame spread beyond the limits of the State, and nowadays it is esteemed by physicians in all sections of this country and indeed abroad. Of course, the very accurate analysis which has been made, to some extent explains its remarkable effect as a solvent of uratic and phosphatic deposits in the body, and its value in the treatment of rheumatic and gouty affections, renal calculi, and diseases of the kidney and bladder. But after all, it is chiefly the experience of competent clinical observers to which the Buffalo lithia water owes its high position. So, too, the practice of giving lithia in tablet form to be dissolved and drank, to which some physicians have resorted, has not been successful, on the contrary, results have been only meagre or nil. Our contention is that a mineral water must not be considered from the chemical point of view, but mainly from a therapeutic standpoint.

Rheumatism Due to Grip.

In speaking of the treatment of articular rheumatism, Hobart A. Hare, M.D., Professor of Therapeutics in the Jefferson Medical College and editor of The Therapeutic Gazette, says: "Any substance possessing strong antipyretic power must be of value under such circumstances." He further notes that the analgesic power of the coal-tar products "must exert a powerful influence for good." The lowering of the fever, no doubt quiets the system and removes the delirium which accompanies the hyperpyrexia, while freedom from pain saves an immense amount of wear, and places the patient in a better condition for recovery. The researches of Guttmann show conclusively that these products possess a direct anti-rheumatic influence,and among those remedies antikamnia stands pre-eminent as an analgesic and antipyretic. Hare, in the latest edition of his Practical Therapeutics, says: "Salol renders the intestinal canal antiseptic." This is much needed in the treatment of rheumatism. In short, the value of salol in rheumatic conditions is so well understood and appreciated that further comment is unnecessary. The statements of Professors Hare and Guttman are so well known and to the point, and have been verified so often, that we are not surprised that the wide-awake manufacturers placed "Antikamnia & Salol Tablets" on the market. Each of these tablets contains two and one-half grains of antikamnia and two and one-half grains of salol. The proper proportion of the ingredients is evidenced by the popularity of the tablets in all rheumatic conditions and particularly in that condition of muscular soreness which accompanies and follows the grip.

PRUNOIDS.

The following letter from Dr. James P. Hawes of Valois, New York, is typical of the complimentary expressions the Sultan Drug Co., of St. Louis, is receiving regarding their new product Prunoids: "I have practiced medicine for twenty years and all that time I have been looking for a laxative that would be pleasant to take, do its work nicely and QUIT there. I have never found it until Prunoids came. So pleasant to take and by all comparison the best that I have ever used." The Sultan Drug Co. will be pleased to send sample of Prunoids to any of our readers who will mention this Journal.

Peacock's Bromides.

Peacock's Bromides is the finest bromide preparation on the market. The salts entering its composition are far superior to commercial bromides. This is easy to prove and has been proven by analysis. Thus extemporaneous mixtures and substitutes are inferior to Peacock's Bromides; and, by the way, this accounts for the success achieved by Peacock's Bromides. Each fluid drachm contains fifteen grains of bromides.

Treatment of Amenorrhea.

In suppression of the menses caused by constitutional diseases, such as pulmonary tuberculosis, Ergoapiol (Smith) should be administered for ten days in advance of the regular date of the flow. For the first seven days one capsule should be given three times daily after which the dose is to be increased to two capsules four times daily until the appearance of the flow. As soon as the flow has started the dose is again reduced to one capsule three times daily and its use continued until the period has been passed. In cases of acute suppression due to cold, worry, fright, grief or mental shock, the flow can be promptly brought on by the administration of Ergoapiol (Smith) in doses of two capsules four times a day until menstruation is observed, when the dose is reduced to one capsule three times a day and continued until the flow has ceased.

Urethral Inflammation.

Usually the only treatment needed to cure urethritis is to administer sanmetto and alkalies, with an occasional purge, and very mild injections of chloride of zinc.

Bedside Experience.

The best test, both pharmacological and ethical, for a medicine is bedside experience. For what avail is a laboratory product based upon a fine-spun theory in chemistry if it does not work out results in the laboratory of Nature, the human body? Or why wrangle over the "ethics" of a remedy which accomplishes results in healing disease? To heal one's patient is the best ethics. Send to Od. Chemical Co., 61 Borrow St., New York City, for "Laboratory Results Supported by Bedside Experience."

Infectious Diseases.

As the kidneys are the most active channel of elimination, not only of leucomaines and ptomaines, but also the micro-organisms of infectious and other diseases, it is specially important that elimination be constantly favored by the administration of a soothing and healing diuretic resolvent. This indication is met by administering sanmetto in teaspoonful doses four times a day. This explains why this remedy is so valuable as adjuvant treatment in la grippe, scarlet fever, gonorrhoea and other diseases.

Preliminary Program American Proctologic Society

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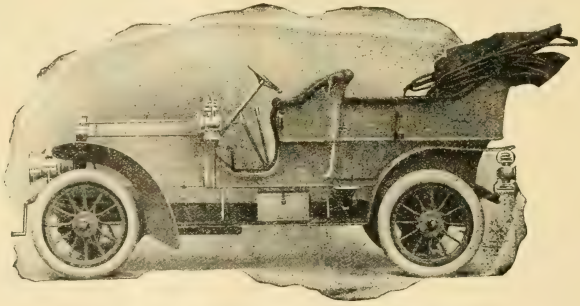

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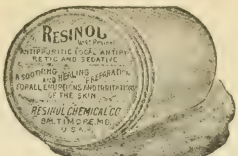

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PROGRAM

Monday, June 1

Executive Council meets at 11 a. m.
First regular session at 2 p. m.
Annual Address of the President—
Subject:

A. Bennett Cooke
Nashville, Tenn.

PAPERS

1. The Treatment of Choice of Stricture of the Rectum—Wm. M. Beach, Pittsburg, Pa.

2. Amebiasis: Its Symptomatology, Diagnosis, Sequellæ and the Use of Formalin and Copper Phenol Sulphonate in its Treatment—John L. Jelks, Memphis, Tenn.

3—(*a*). Physiology of Defecation.

(*b*). Report of a Case of the Extraction of a Plate with False Teeth from the Sigmoid—Sam'l T. Earle, Baltimore, Md.

4. The Treatment of Chronic Constipation, Including a Consideration of Obstipation—Sam'l G. Gant, New York City, N. Y.

5. Dysentery—Jos. M. Matthews, Louisville, Ky.

6. Galvanic and Faradic Electricity in the Treatment of Hemorrhoids, Fissures, Prolapse, Ulceration and Non-Malignant Stricture of the Rectum—Wm. L. Dickinson, Saginaw, Michigan.

7. The Choice of an Anæsthetic in Anal Surgery—Jerome M. Lynch, New York City, N. Y.

8. Chronic Multiple Punctate Ulcers of the Rectum—J. A. MacMillan, Detroit, Michigan.

9. Benign Tumors of the Rectum—T. C. Hill, Boston, Mass.

10. Profound Peri-Rectal Abscess—Collier F. Martin, Philadelphia, Pa.

11. Surgery of Special Diseases of the Rectum—Geo. B. Evans, Dayton, Ohio.

12—(*a*). Report of Cases: Profound Secondary Anemia from Internal Hemorrhoids, (Six Cases). Gangrene of the Rectum from Self Treatment of Internal Hemorrhoids (One Case).

(*b*). Presentation of New Examining Speculum—Dwight H. Murray, Syracuse, N. Y.

13. Spontaneous Intestinal Anastomosis—Jas. P. Tuttle, New York City, N. Y.

14. Mesosigmoidopexy, with Report of Two Cases—Louis J. Hirschman, Detroit, Michigan.

15. Carcinoma of the Rectum; Comparative Results of Operative Procedures—J. Rawson Pennington, Chicago, Ill.

16. Primary Melanotic Sarcoma of the Rectum with the Report of Two Cases—Louis J. Krouse, Cincinnati, Ohio.

17. Some Colonic and Sigmoidal Conditions—Edwin A. Hamilton, Columbus, Ohio.

18. Rectal Hemorrhage Due to Capillary Varicosity—B. Merrill Ricketts, Cincinnati, Ohio.

19. Valvotomist and Valvotomy as a Fad and Fallacy—Leon Straus, St. Louis, Mo.

20. Rectal Diseases,—a Report of Three Cases:—Condylomata, Lipoma, and Dermoid Cyst—Lewis H. Adler, Jr., Philadelphia, Pa.

Work is soon to be begun on the new Richardson Memorial Building of Tulane University, New Orleans. The building is to cost about $200,000, and will have three stories and a basement, which will be devoted to laboratories, research rooms, and administration offices. It is expected to be ready by next October.

Yellow Fever in Cuba.

Yellow fever is said to be still present in Havana and elsewhere in Cuba. A private of the Fifteenth United States Cavalry died of the disease last week at Santa Clara.

A Case of Tic of the Head and of the Trunk, Existing only During Sleep.

Cruchet describes this unusual case. The patient, when admitted to the hospital, was six years of age. The affection for which he was taken to the hospital had begun at the age of two years, and had never ceased, save for two months, when the child suffered from croup. These movements of balance were performed rapidly and only during sleep. The movements continued for different periods, 10, 18, and 20 minutes. Between these times he would rest completely for a half or three-quarters of an hour. He made from fifteen to twenty movements, one after the other, with an interval of about a second between them. To balance himself, he placed his left hand behind his head, the trunk being half bent over the pillow. The respiration was rhythmical. The exercise made the child warm, for he was red when he finished. His eyes were closed. To make him stop, it was necessary to waken him, or touch him on the tips of his fingers, or prick him gently with a pin. Then he would moan and stop. When he finished the movements he would lie down in bed quietly till the next series. On waking he remembered nothing of what he had been doing. Lumbar puncture met with negative results. Antipyrin administered to the little patient seemed to improve the condition, but the disappearance of the tics is far from being obtained as yet.—Gazette Hebdomadaire des Sciences Medicales de Bordeaux.

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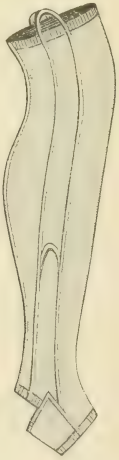

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The Blood Dyscrasias of Pregnancy.

It is evident that the female economy undergoes profound alteration during pregnancy. The whole organism is subjected to unusual strain and the necessary changes in the general metabolism invariably increase the tax, not only on the constructive forces of the body, but on the eliminative functions as well. The slightest failure to throw off either the waste products incident to the necessarily increased physiological activity of the mother, or those resulting from the establishment of the more complex metabolistic processes in the fetus, always tends to create a vicious circle of blood dyscrasia that is not infrequently fraught with great danger. For instance, faulty elimination means embarrassment of the hematogenic function, with hemolytic changes more or less severe, and these conditions in turn not only coincidently increase the amount of waste substances to be excreted, but directly lower the eliminative capacity as well. In other words, the initial effect tends to exaggerate the pernicious influence of the primary cause, and the accumulative result is therefore the most dangerous feature.

Hence, it is little wonder that slight deviations from the normal during pregnancy often assume certain serious aspects that are out of all proportion to their first importance. All this teaches that comparatively slight ailments are unknown quantities when not in connection with the pregnant state, and should be treated not on the basis of their apparent significance, but on the basis of their possible dangers.

The blood dycrasias, particularly the anemias, because they are most easily demonstrable, call for early correction in pregnancy. It requires no argument to show that much depends on the physiological activity of the cellular elements of the blood, and any deficiency in their number or functionating capacity is always portent of evil. Vigorous treatment is necessary and among the really effective therapeutic measures at the command of the profession. Pepto-Mangan (Gude) is especially worthy of prominence. This widely known and widely used product possesses marked hematopoietic properties, and its effect on the increment of new blood cells gives valuable aid in promoting rapid and effective elimination.

Extensive experience has shown therefore that in no condition is Pepto-Mangan more useful or prompt in its resnlts, than in the blood dyscrasias of pregnancy. Its immediate action is not only satisfactory, but its extensive use for some time previous to delivery, as well as subsequently, favors rapid convalescence during the trying post-labor period, with very noticeable effect on the local phenomena of involution.

Briefly stated, Pepto-Mangan (Gude) is a tonic hematic, unusually potent for good, and absolutely free from harm. Its more than substantial success in this class of cases is the most convincing argument for its continued use.

Grippe Convalescence.

The most dangerous feature after an attack of la grippe is the seriously depressed condition of the circulatory organs. As one physician has expressed it, the condition is best described as "chronic shock." The heart is weak and unresponsive to demands on its energy, the blood-vessels are in a state of atonicity, and the blood pressure is dangerously affected by every mental or physical influence.

Under these conditions it is apparent that the grippe convalescent is not only constantly menaced by serious heart or circulatory depression, but by many acute diseases as well.

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In simple language, Gray's Glycerine Tonic Comp. is a dependable means of helping weakened cells and tissues to recover their vital balance.

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The physician cannot be too careful in the selection of the kind of codeia he administers. The manufacturers of antikamnia & codeine tablets guarantee the purity of every grain of codeia which enters into their tablets. This not only prevents habit and the consequent irritation which follows the use of impure codeia, but it does away with constipation or any other untoward effect.

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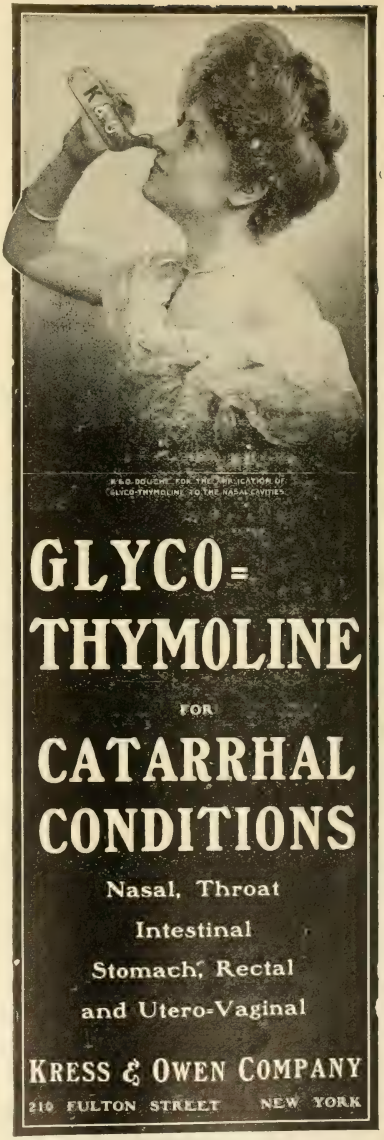

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Tampa, Fla.

MEDICAL ASSOCIATION OF GEORGIA.

Annual meeting at Fitzgerald, Ga., April 15, 1908.
Louis H. Jones, M. D., Sec.,
Atlanta, Ga.
M. A. Clark, M. D., Pres.,
Macon, Ga.

KENTUCKY STATE MEDICAL ASSOCIATION.

Annual meeting at Winchester, Ky., October 1908.
A. T. McCormack, M. D., Sec.,
Bowling Green, Ky.
D. M. Griffith, M. D., Pres.,
Owensboro, Ky.

LOUISANA STATE MEDICAL SOCIETY.

Annual meeting at Alexandria, La., May 12, 13 and 14, 1908.
P. L. Thibaut, M. D., Sec.,
141 Elk Place, New Orleans, La.
Oscar Dowling, M. D., Pres.,
Shreveport, La.

MISSISSIPPI STATE MEDICAL ASSOCIATION.

Annual meeting at Natchez, Miss., April 14, 1908,
E. T. Howard, M. D., Sec.,
Vicksburg, Miss.
R. S. Cu y, M. D., Pres.,
Columbus, Miss.

MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA.

Annual meeting at Winston-Salem, N. C., June 16 and 19, 1908.
D. A. Stanton, M. D., Sec.,
High Point, N. C.
J. Howell Way, M. D., Pres.,
Waynesville, N. C.

NEW MEXICO MEDICAL SOCIETY.

Annual meeting at Albuquerque, New Mexico, 1908.
G. S. McLandrese, M. D., Sec.,
Albuquerque, N. M.
R. E. McBride, M. D., Pres.,
Las Cruces, N. M.

SOUTH CAROLINA MEDICAL ASSOCIATION.

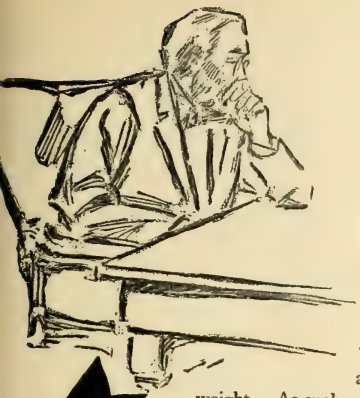
Annual meeting at Anderson, S. C., April 16 and 17, 1908.
Walter Cheyne, M. D., Sec.,
Sumter, S. C.
Le Grande Guerry, M. D., Pres.
Columbia, S. C.

TENNESSEE STATE MEDICAL ASSOCIATION.

Annual meeting at Knoxville, Tenn., April 14, 1908.
Geo. H. Price, M. D., Sec.,
146 8th. Ave., N., Nashville, Tenn.
A. B. Cooke, M. D., Pres.,
Nashville, Tenn.

MEDICAL SOCIETY OF VIRGINIA.

Annual meeting at Richmond, Va., 1908.
Landon B. Edwards, M. D., Sec.,
Richmond, Va.
Wm. F. Drewry, M. D., Pres.,
Petersburg, Va.



Doctor!!

what do **you** think of

Coca-Cola

The opinion of a physician—a man of science—bears infinite weight. As such a man, Doctor, we want your good opinion for Coca-Cola. We know that facts, rather than arguments, will appeal to you. A very small amount of Caffeine (the only medicinal element in it) is contained in Coca-Cola. For this reason we submit the following extracts from the United States Dispensatory relative to Caffeine (see Pages 283 and 284—18th edition).

"Caffeine is a valuable remedy in practical medicine as a cerebral and cardiac stimulant and as a diuretic. In undue somnolence, in nervous headache and in narcotism."

"As a diuretic it is superior; it is very valuable in the treatment of cardiac dropsies."

"It has no distinctive cumulative tendencies."

"If tried, it would probably prove a useful drug in cases of sudden collapse from various causes."

Also read what is said of the quantity of caffeine in various teas and coffees, on pages 281 and 282 of the Dispensatory.

We give also the analyses of two eminent chemists who, among hundreds of others, have scientifically proved Coca-Cola wholesome:

Report of New Jersey Chemist

Dr. Louis Schaefer, President of the Schaefer Alkaloid Works, Maywood, N. J., a chemist of world wide reputation, said:

"I have made a thorough analysis of Coca-Cola syrup, using the best knowledge of my long experience in the chemistry of alkaloids. I found the sample contained a small percentage of caffeine. I could not isolate other alkaloids. I especially directed my efforts to the detection of cocaine. Not a trace could be found."

Chicago, April 15, 1907.

We beg leave to report to you the result of analysis of Coca-Cola. We purchased in the open market an original package of one gallon of Coca-Cola. The contents of this jug were submitted to a very careful and exhaustive analysis for cocaine and alcohol, and we failed to find any trace of either. Caffeine was found to the extent of .2 of one per cent. The amount of caffeine contained in one ounce of Coca-Cola used for making one glass of the prepared drink is less than one-half that is contained in a cup of coffee of average strength.

Very respectfully submitted,

THE COLUMBUS LABORATORIES

Per J. A. Wesener

THE COCA-COLA COMPANY

ATLANTA, GA.

38

Officers of the North Carolina Medical Society.

President, J. Howell Way, Waynesville
1st Vice-President, J. E. Stokes, Salisbury.
2nd Vice-President, J. A. Turner High Point.
3rd Vice-President, W. H. Dixon, Edward, Beaufort.
Secretary, D. A. Stanton, High Point.
Treasurer, H. McKee Tucker, Raleigh.

COUNCILLORS (3 YEARS TERM).

1st District, Oscar McMullan, Elizabeth City.
2nd " R. A. Whittaker, Kinston.
3rd " Frank H. Russell, Wilmington.
5th " Albert Anderson, Raleigh.
4th " J. F. Highsmith, Fayetteville.
6th " Hubert A. Royster, Raleigh.
7th " C. M. Strong, Charlotte.
8th " J. B. Smith, Pilot Mountain.
9th " J. M. Taylor, Morganton.
10th " James A. Burroughs, Asheville.

Orator, Chas. Staples Mangum, Chapel Hill.
Essayist, T. R. Little, Greensboro.
Leader of Debate, S. E. Koonce, Wilmington.
Committee on Public Policy and Legislation: R. H. Lewis, Raleigh; J. H. Way, Waynesville (ex-officio); Hubert Royster, Raleigh; Dr. Brooks; Greensboro. D. A. Stanton, High Point:
Committee on Publication: D. A. Stanton, High Point, (ex-officio); E. C. Register, Charlotte W. H. Wakefield, Charlotte.
Committee on Scientific Work: E. J. Wood, Wilmington; Jno C. Rodman, Washington; [ex-officio] D. A. Stanton, High Point.
Committee on Finance: R. W. Smith, Hertford; W. A. Monroe, Sanford; D. A. Garrison, Bessemer City.
Committee on Obituaries: C. A. Julian, Thomasville; Benj. K. Hays, Oxford; R. L. Gibbon, Charlotte.

Medical Society of the State of North Carolina meets in Winston-Salem, June, 16-19, 1908.

The Tri-State Medical Association of the Carolinas and Virginia (only members of State Societies eligible). Next Annual Meeting: Charleston, S. C. Date of meeting To be fixed later 1909. President, Dr. Albert Anderson, Raleigh, N. C.; Secretary Treasurer, Dr. J. Howell Way, Waynesville, N. C.

We suggest that our readers send to The Abbott Alkaloidal Company, Chicago, Ill., for their new therapeutic price list which is now ready for distribution. There is much of interest and value in this list for every progressive physician.

Impotent Criticism.

The following extract from a letter written recently to Dr. W. C. Abbott, Chicago, tells its own story:

"The skin on Paul's back was cut into shreds; Luther was turned out of church; Servetus was burned at the stake and Columbus was sent to jail. Do you think you are better than they? Take courage. 'We are traveling to the beautiful City of the Ideal. We know that we shall never reach it—but the suburbs are very pleasant.'

"There are multiplying thousands of honest capable physicians, all over the civilized world, who have confidence in your high ideals, the purity of your intentions, and your good right arm. Nothing is more sure than that your name will be writ high on the tablets of fame and there live long after your critics and their opinions are buried under tons of oblivion."—The American Journal of Clinical Medicine.

Over sixty years ago, the Pond's Extract Company began the preparation of Pond's Extract, selecting therefor the best and most luxuriant growths of the shrub at the season of the year when richest in extractive material, and perfecting a process whereby an extract of uniform strength and efficiency was produced.

As a consequence, during all these years Pond's Extract has been the standard product of its class, and its purity, unvarying quality and reliable remedial action have created a well-grounded confidence that has naturally led to its preferment by the medical profession. It is no small thing, moreover, which medical men have come to appreciate—that complete reliance can be placed on the absolute freedom of Pond's Extract from all toxic or injurious substances like wood alcohol or formaldehyde.

Bridge the Gap.

During the spring months, especially if the weather has been of the varied sort, the profession has its hands full of cases recovering from respiratory ailments and which need particular care to steer them safely to normal health.

There is a distinct gap which must be bridged over. It is the gap between an actual pathological entity and complete health. If, during this interval the patient's strength is conserved and added to and he is properly protected, such a grave sequela as the grafting on of a tubercular process is avoided, and the patient progresses to a normal state.

To bridge this gap nothing is quite so serviceable as a palatable cod liver oil preparation. The representative of this class of remedies is Hagee's Cordial of the Extract of Cod Liver Oil Compound, and it is in constant use by the profession and with most gratifying results.—The Medical Era.

Puberal Anemia.

Broad clinical experience certainly tends to support the opinion of many medical men that chlorosis is practically limited to the female sex, and to these during the child-bearing period. As is well known, chlorosis is hardly a true anemia, inasmuch as it consists rather of a decrease of hemoglobin than any marked or constant diminution in either the corpuscles or mass of the blood. There is a true anemia, however, which occurs at or about puberty and is common to both sexes. This may properly be spoken of as a puberal anemia and manifests itself by both oligocythemia and oligemia. Young men as well as young women are attacked and the cause seems to rest on actual structural deficiencies rather than on emotional influences, as is generally beliexed to be the case in chlorosis. It is slow and insidious in its onset and is characterized by a pallor or bloodless appearance quite different from the greenish color of chlorosis. Examination of the blood shows a greater or less decrease of hemoglobin, but unlike chlorosis, the red cells and total quantity of the blood are lowered very markedly. Strange to say, however, the specific gravity is usually raised in puberal anemia, while in chlorosis it is generally lowered.

The Physician of Many Years' Experience

Knows that, TO OBTAIN IMMEDIATE RESULTS

there is no remedy like

Syr. Hypophos. Co., Fellows

Many MEDICAL JOURNALS specifically mention this

Preparation as being of Sterling worth

TRY IT AND PROVE THESE FACTS

SPECIAL NOTE.—Fellows' Syrup is never sold in bulk.

It can be obtained of Chemists and Pharmacists everywhere.

NOTICE—CAUTION.

The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these, ***finds that no two of them are identical,*** and that all of them differ from the original in composition, in freedom from acid reaction, in susceptability to the effects of oxygen when exposed to light or heat, ***in the property of retaining the strychnine in solution,*** and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. ***Fellows.***"

As a further precaution, it is advisable that the syrup should be ordered in the original bottles; the distinguishing marks which the bottles (and the wrappers surrounding them) bear, can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

Department of Medicine
UNIVERSITY OF VIRGINIA
Charlottesville, Virginia.
Edwin A. Alderman, President.

Organized in 1825 and in continuous operation except one year since that date, this department offers thorough medical instructions in the environment of an old and famous University.

The Entrance Requirements are the completion of a three-year high school course in Physics, Inorganic Chemistry, and General Biology.

The course is graded, and extends over four years of nine months each. There are good laboratory facilities in Chemistry, Anatomy, Physiology, Histology, and Embryology, Bacteriology, Pathology, Pharmacology and Clinical Diagnosis. Clinical Material is furnished by a new hospital, the property of the University, with more than 100 beds and by the Dispensary with about 2,000 cases annually. Next Session begins September 10. Send for Catalogue. HOWARD WINSTON, Registrar.

One pronounced clinical symptom referable to the pulse, according to a prominent English authority, will moreover be found in puberal anemia, which is not common in chlorosis. In anemias of failing quantity, such as puberal anemia, the pulse is almost invariably feeble and empty, while in chlorosis it is often dull and even of quite excessive pressure.

The type of anemia under discussion is probably due to

(1) Excessive demands on, or actual destruction of the blood elements.

(2) Deficient renewal of its elements.

(3) Or both.

The first is a sequence of some disease like fever or toxemia; the second of inanition or malnutrition; and the third of some wasting process, which not only depreciates the blood, but by lowering functional activity militates against any physiological tendency to restoration.

In any instance the paramount need is to stimulate hematopoiesis, and for immediate and satisfactory effect in this direction Pepto-Mangan (Gude) has been found of very great value. Under its administration, the hematogenic function is actively increased and the appetite and general nutrition raised. The digestion is improved and never embarrassed—a statement that can be made of none of the inorganic preparations of iron.

It goes without saying that the best of hygiene, good food and as much outdoor life as possible should also be prescribed in the treatment of puberal anemia. The condition if allowed to continue is always dangerous, principally because of its predisposing tendencies to graver disease; but the results of the treatment recommended are usually so prompt and decisive that there is rarely any excuse for its not being controlled. At any rate, "It is the stitch in time" that saves serious trouble, and Pepto-Mangan (Gude) in this class of cases will be found a very dependable stitch.

Notice to Alumni of the Tulane Medical Department.

It is important that all graduates of Tulane intending to be present at the meeting of the A. M. A. in Chicago, June 2 to 5, should write at once to Dr. Hugh B. Williams, 100 State St., for information concerning the gathering of the Alumni on June 2. Tulane headquarters will be at the Auditorium Hotel and Alumni are urged to call upon their arrival for information. This is important.

Privately Owned Medical Journals—An Objection Made to Them.

From time to time, the society and association organs have referred to "privately-owned" medical journals, as though the hypenated adjective applied to them was incontestible evidence of illigitimacy. "Privately-owned" is written with the same distrust that is employed in penning the term "secret formula" or "advertised to the laity."

There are several American medical journals that are compelled to plead guilty to the charge of being "privately owned." Some are even shameless and brazen enough to admit that they contribute something to the material support of the "private owner." And what, pray, shall we do about it?

To be sure many of these shameless journals are owned by physicians—"*brother* practitioners" we have chosen to call them when the milk of human kindness is wet upon our lips. The charge then, is that certain medical journals in being "privately owned" contribute to the support of certain physicians who find literary work not inconsistent with the honest practice of medicine. We have not arrived at that superlative ethical state where we see anything improper in that. But to be stigmatized as "privately owned" seems, in some quarters, to at least be placed under suspicion. Out of the placid hamlet of Berlin, once came a publication which bore the ear-marks of being "privately-owned" called "*Virchow's Archives*" and we sincerely trust that the noble leader of medical thought who fathered it went to his grave without realizing that he was brazen and (at least) indelicate in "privately-owning" a journal.

The editors of the society and association organs, who pull in their immaculate skirts when they pass by the "privately-owned" in the broad road of life, are not recorded in the Book of Virtue as deriving no material compensation from their labor. In fact, some of the unregenerate contend that, virtuous though they may be, they have inscribed over their desks that scriptural passage which was so attractive to Mother MARY BAKER G. EDDY—"the servant is worthy of his hire." If deriving money from a journal constitutes the misconduct which causes the "privately-owned" journal to be viewed askance, we are unable to see how a fat salary abstracted from medical society coffers differs from that voluntarily paid by physicians by their own wish and volition. If there be a difference in the virtue of the incident, it would appear to us that the balance turns toward the latter method of compensation.

We are unable to appreciate the view taken of the "privately-owned" publication, perhaps because we are one of them. However, we cannot resist the belief that, if, in the great scheme of organization, a coterie of medical men "representing the profession" should undertake the manufacture of surgical instruments as well as the publication of journals and directories, the "privately-made" obstetrical forceps would be too brazen and unnice an

The Sarah Leigh Hospital.

NORFOLK, VIRGINIA.

A private Hospital designed and constructed with every modern convenience and equipment. Pleasant and quiet surroundings. Rooms single or en suite. Private baths.

Intended especially for Surgical, Gynecological, Obstetrical and Rest Cure cases.

For information address one of the following:

Dr. Southgate Leigh, Surgeon in Charge, **Dr. Stanley H. Graves,** Associates

Miss M. A. Newton, Superintendent.

ST. LUKE'S HOSPITAL.

DR. J. H. MARSH'S PRIVATE SANATORIUM.

FAYETTEVILLE, N. C.

Saint Luke's Hospital is conducted by Dr. J. H. Marsh as a Private Sanatorium for the exclusive use of his patients, and is provided with an able staff of thoroughly qualified assistants.

The building was erected in 1904, and thoroughly equipped with the latest scientific appliances for the treatment of all classes of Medical, Surgical, Gynecological, Eye, Ear, Nose and throat diseases; and is located on Haymount in the most beautiful resident part of the city. Contagious diseases are not admitted

The nurses are provided from the Saint Luke's Hospital Training School for Nurses.

The terms are moderate varying from $12,50 to $20,00 per, week for board and general nursing according to the room occupied, For Booklet and further information Address. **J. H. MARSH, M.D**

NEW YORK CITY

THE HERMITAGE

A CLUB HOTEL FOR MEN

The name tells the story

Seventh Ave. and Forty-second St. Junction of Broadway

Restaurant on the street floor, —a resturant where ladies are welcome.

Every other part of the house exclusively for MEN.

Telephones in every room.

Respectful, quiet, obedient and alert Japanese servants.

Bedroom and bath $2.00 a day upward.

Send for Booklet

T. F. PADDELL, Proprietor

ARE YOU GOING TO ST. LOUIS?

THE

Windermere Hotel

Is a delightful place in

BEST RESIDENT SECTION

and away from the noise and smoke, yet within easy access.

SPECIAL RATES, $1.00 TO $3 00 PER DAY

SPECIAL RATES BY THE WEEK

WRITE FOR BOOKLFT

Address:

W. F. WILLIAMSON, Mgr.

SOUVENIR POST CARDS FREE

Send 10 cents for a Regular 10 cent package of Dr. Parker's Celebrated Headache Powders and we will send you FREE a set of beautiful Souvenir Post Cards, without advertising.

For 2 sets, send 20 cents. ADDRESS,

PARKER-WILLIAMSON MED CO.,

St Louis MO.

TO FINISH FLOORS AND WOODWORK

"FLOOR-SHINE" your Floors, Furniture and Woodwork. Write to-day for our FREE Samqle Card, showing Colors and List of Dealers who sell

"FLOOR-SHINE" ENAMEL COLORS

Address, FLOOR-SHINE COMPANY

St. Louis, Mo.

HYOS-SCO-DEINE

Is a Succedaneum to Morphine as an ANALGESIC, ANODYNE AND HYPNOTIC.

Valuable in Neurasthenia, Hysteria, Acute and Chronic Depression of the Nervous System, Respiratory Irritations, Insomnia, Cardiac Failure, and in Neuroses following the withdrawal of Alcoholic Stimulants.

Literature and samples sent prepaid to physicians upon request.

COMBS CHEMICAL CO., St. Louis, Mo.

instrument to be used by a truly ethical medical man upon a modest and refined lady. And yet the "pulling-power" of the privately made forceps might be quite as strong as that of the orthodox instrument—as is, incidentally, the "pulling-power" and the educating power of the privately-owned journal as compared with that of the society organ.

Real ethics, brother practitioners of the old guard, is as clear and unmistakable as the noonday sun. Modern, hand-made ethics, like the love of God, "passeth all understanding."—Chicago Clinic.

Rebuked by a State Organ—We are Shown our Short-Comings.

A short time ago, we stated in these pages that society organs must ever be editorially insignificant and vapid if the editors represented their "community ownership" and not themselves. That there is not sufficient unanimity of opinion in any medical society to permit its organ to have any positive editorial policy or views.

To this opinion, the organ of the Illinois State Medical Society takes marked exception and we are made the subject of what was doubtless intend ed to be a stinging rebuke in a March editorial in that organ.

This editorial began with a song of triumph over the fact that the organ had, in that month, been printed to the number of over 5,000. This was apparently intended to convince us of the strength of some State society organs. Incidentally, the only thing that the jubilee song convinced us of was that the Illinois State Medical Society is getting to be a big organization to require 5,000 copies of the organ for gratuitous distribution among its members. This fact we already knew and in it we have taken great pride; but we also knew that the organ has had little or nothing to do with the Society's growth or prosperity.

But the truth of our assertion that the editorial management of a Society organ could never be characterized by individuality or strength, could not have been demonstrated so effectively in any way as through this rebukelet in the Illinois Medical Journal. Instead of calling us names, the editor attempted to overcome the truth of our assertion by calling attention to what he seems to regard the short-comings of our advertising pages and he gives

The Telfair Sanitarium, Asheville, N. C.

For the treatment of Nervous and Mental Diseases, Alcoholic and Drug Habitues.

The treatment is based on scientific principles, and thoroughly and permanently removes, without suffering or inconvenience, all desire for Drugs or stimulants, restoring the patient to a normal, physical and mental condition. The Sanitarium is conducted on modern lines and receives the endorsement and support of the profession.

FOR PARTICULARS AND TERMS ADDRESS,

The Telfair Sanitarium

The Hygeia

Private Hospital and Sanatorium

101 West Grace Street, Richmond, Va.

DEVOTED EXCLUSIVELY TO MEDICAL AND NERVOUS DISEASES

EXTENSIVE improvements and additions have just been completed, which make The Hygeia now the largest strictly private Medical institution in this country. All approved HOSPITAL facilities for *acute* cases, and full SANATORIUM facilities for *chronic* cases. ***Equipment:*** Baruch Therapeutic Baths, Electricity, Vibration, Electric Light, X-Ray, Nauheim Baths, Massage, etc., together with laboratory methods of diagnosis. Usual Rates. Descriptive booklet.

J. ALLISON HODGES, M. D.

TUBERCULOSIS.

THE PINES, Black Mountain, North Carolina.

A private Sanatorium specially equipped for the treatment of early Tuberuclosis.

Besides the main building also have tents and cottages specially constructed to insure thorough and constant ventilation. Altitude 2,800 feet. Situated in pine grove of twenty acres.

Rates on application.

CLYDE E. COTTON, M. D.

CAUTION!

Whenever the true merit of a preparation is authoritatively established, imitation is sure to make its pernicious appearance.

Dr. Owen, in a report to the Medical Society of Victoria, and Dr. I. Benjamin, in the Lancet, London, both denounced as others did before,on the strength of negative results,the application of unspecified eucalyptus products.

The last fraud—a bold form of piracy illicitly using firm-name and reputation of Sander and Sons, their bottles, labels, etc, had to be corrected by appeal to law. In this case testimony in the witness box revealed aggravation of trouble caused by the use of that counterfeit.

This is decided proof that only the authoritively sanctioned article known as "Sander & Son's Eucalyptol" can be relied upon.

Therefore, to safeguard the physicians, interests and to protect their patients, we earnestly request to specify **SANDER'S EUCALYPTOL"** when prescribing eucalyptus.

The Meyer Bros. Drug Co. St Louis, Mo,. agents, will forward one original package (1oz.) on receipt of One dollar.

SANDER & SONS, Bendigo, Australia.

a list of the advertisements (some of them misspelled, to be sure), which appear in our pages and to which he takes exception. Now, the interesting feature of this list is that it includes a number of advertisements which, until a very short time ago, were carried in the Illinois Medical Journal under the present editor. Propriety, decency and ethics do not change with the seasons. What was proper and decent and ethical a few months ago, is thoroughly reputable today. Whatever we may say of the editor of the Illinois Medical Journal, we believe him to be absolutely honest. We consequently assume that, a short time ago, when his journal was carrying the advertisements in question, he knew that he was doing nothing unethical or improper. We do not believe that he is willing today to stigmatize the past management of his journal as unethical or corrupt.

It is not to be assumed that a man will absolutely change his opinions of propriety and ethics in a day and we have no reason to assume that the editor of the Illinois Medical Journal has changed his. We do know, however, that the Illinois Journal was taken away from Springfield, where it was published under the present editor's personal direction, and has since been housed in the quarters of the American Medical Association, and we further know that the "powers that be" in the American Medical Association have recently framed some new ideas of "ethical advertising," which will be proven right or wrong after the passage of a reasonable amount of time. We know, further, that certain employes of the American Medical Association have tried to force these ideas of "ethical advertising" upon the medical journals of the country.

We believe that the way in which the editor published the Illinois Journal when it was under his direct supervision at Springfield, was the manner which he considered reputable. Hence, we can but reach the conclusion that the present advertising policy of the Journal is not of his making, but dictated by those who now print and proof-read that organ.

Which brings us back to the conclusion that the editor of a Society organ cannot exercise his individuality and that his own views must be stifled in the conflicting opinions of community ownership. With the advertising policy of his journal so radically changed, the editor was placed in the embarrassingly inconsistent position of condemning others for that which had been done in times past by his own journal and under his own editorship. It is safe to say that there is no power which can so dictate to the physician or physicians who own and edit their own periodical.—Chicago Clinic.

The thirty-fourth annual meeting of the Mississippi Valley Medical Association will be held in Louisville, Ky., October 13, 14, 15, 1908, under the presidency of Dr. Arthur R. Elliott, of Chicago.

Announcement has just been made of the selection of the orators for the coming meeting, by the President. The Address in Medicine will be delivered by Dr. George Dock, Professor of Medicine in the University of Michigan, Ann Arbor; and the Address in Surgery by Dr. Arthur Dean Bevan. Professor of Surgery in Rush Medical College, Chicago. The mere mention of these names is enough of a warrant that this feature of the program will be in every way first class.

The local Committee of Arrangements in Louisville has selected The Seelbach hotel as headquarters, the general sessions and the section meetings being held in the hotel's large auditoriums.

One of the features of the entertainment projected is a smoker in the famous Rathskeller of the hotel—the finest of its kind.

The McDowell button, so much admired at the 1897 meeting in Louisville, will be reproduced in bronze for this meeting.

The Causes, Hathology, ann Treatment of Chronic Rheumatism.

Ctockman (Edinburgh Med. Jour.) calls attention to the fact that the symptoms arising from implication of the fibrous tissues about the bladder and thorax often cause much mental anxiety to patients. In the case of the bladder the symptoms consist in dull pain and increased frequency of micturition, but they usually pass off in about a week. When the intereostal muscles and the fibrous tissues of the ribs and sternum are affected, each respiration may cause pain or discomfort, and if the respiration be deepened by effort. the pain may become acute and darting or stabbing in character. When the fibrous tissue behind the pharynx is affected, the symptoms are chiefly subjective; the patient feels as if the parts were slightly swollen, stiff, and uncomfortable; but little or nothing can be made out on inspection. It is not known whether the pains in the muscles and bones in acute muscular rheumatism are due solely to a true rheumatic infection or whether they occur with several febrile conditions. The general treatment is that of a slight feverish attack and recovery takes place in a few days. If the pains are widely spread over the body, rest in bed, light dirt, saline purgation, mild diaphoretics or mild alkaline diuretics hasten recovery and give ease to the patient. Sodium salicylate, alone or with phenazone or phenacetin, greatly relieves pain and aching; or methyl salicylate may be applied locally. The salicylates, however, do not exercise the same immediate specific action which they show in acute articular rheumatism. A hot bath, followed by a copious perspiration or a Turkish bath, with well-applied massage, if taken in time, may abort the attack. Very often in such an attack the chief site of the pain is localized in the lumbar region, shoulders, neck, chestwall, or lower extremities, and in these places, the painful area is often small and results frem serious exudation. The best treatment is massage followed by passive and active movements. One thorough application may be all that is necessary. The parts are very tender, and manipulations must be begun very gently by stroking so as so get rid of the exudation and relieve tension. Little by little more pressure can be borne, first with the palm of the hand and then with the fist or knuckles. The local inunction of methyl salicylate alone or mixed with an equal part of liquid paraffine, often relieves the pain, or a ten-per-cent. solution of menthol in liquid paraffine may be used. Docal irritants, such as mustard leaves, are beneficial. In the case of chronic rheumatism, treatment is much

more difficult and prolonged. Massage and exercises, the faradic current, and the injection of solution of chromic acid into any of the fibrous nodules, which are clearly enough defined for this treatment, are indicated. General Massage is of no use. Treatment must be especially directed to any nodules and indurations which can be felt and to parts which are painful.

Electricity and Magnetism of the Skin.

Harnack (Muenchener Medizinische Wochenschrift) has established the following results by his observations: 1. By stroking a nonconductor with the finger tips a person becomes charged with static electricity, and in some individuals with a markedly strong tension after a comparatively very slight exertion of force; 2, with such persons iron and steel objects which they carry with them and frequently take in their hands become to a fairly high degree permanently magnetic; 3, the unrubbed skin may exert an effect upon the magnectic needle and other easily movable objects to which it is approached in which the finger behaves neither exactly like a rubbed varnished object, nor exactly like an iron magnet; the signs of this change rapidly; 4, the influences of the living skin

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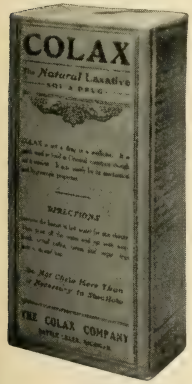

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in different individuals are of different strengths and are independent, in any individual, of the physiological conditions at the time, i. e., of a full or empty stomach, holding of the breath, or movements. A connection with the internal vital processes is doubtless present.

Therapeutics of Normal Serum.

Hort (Lancet) has treated with the most encouraging results a number of morbid conditions by the administration of normal blood serum. Among the diseases treated in this way are gastric and duodenal ulcer, with and without hæmorrhage, chlorosis and other forms of anæmia, hæmophilia. purpura hæmorrhagica, tuberculous peritonitis, hæmoptysis, ulcerations of all kinds, pulmonary œdema, pneumonia, etc. Whatever value normal sermon therapy may prove to have, it does not seem obviously connected with supplying fibrln ferment. It is conceivable that the administration of normal serum may effect the production of autoanticomplement or in some unknown way correct a disturbance of the regulating mechanism. It is not impossible that in all the conditions mentioned there is a common basis of autocytolysis, characterized by destruction of epithelial, endothelial, hæmic, or other cells—which autolysis can be inhibited by normal serum.

Neurology of the Tongue.

Flesch (Muenchener Medizinische Wochenschrift) has studied by means of experiments the conditions present with 1, isolated paralysis of one genioglossus; 2, of one styloglossus; 3. paralysis of both genioglossi; 4, paralysis of the left genioglossus and lingualis; 5, paralysis of the left genioglossus; 6, isolated paralysis of the left hyoglossus; and, 7, paralysis of the internal muscles. Observations were made concerning the position and form of the tongue when at rest, the direction of the raphe, lateral and vertical motility, touching the molar teeth with the tip of the tongue, putting out the tongue, lateral motility of the tongue when put out, retraction of the tongue, empty swallowing, fibrillary twitchings, articulation, and sensibility. He divides the forms of paralysis met with into three groups, glossoplegia totalis, in which all of the muscles, both internal and external, are involved; glossoplegia externa; and glossoplegia interna. The following combinations were observed from foci in the cortex: 1, glossoplegia bilateralis totalis; 2, facial paresis or motor aphasia combined with a monolateral external paresis of the tongue; 3, complete motor aphasia without paresis of the tongue. Hemiatrophy with tremor, without the reaction of degeneration, has been observed as the result of a lesion in the semi-oval centre near the internal capsule. He finds with regard to the peripheral paralyses of the hyoglossus that these should be divided into three groups: 1, If the lesion is situated between the base of the brain and the anterior condyloid foramen there will be a monolateral atrophic paralysis, glossoplegia totalis unilateralis atrophica, with reaction of degeneration, pain on movements of the head, and noninvolvement of the lower muscles of the hyoid bone; 2, if the nerve is affected extracranially as far down as the place where the descending branch is given off there will be a unilateral atrophic total glossoplegia, with involvement of the lower muscles of the hyoid bone on the same side; 3, lesions situated more peripherally cause atrophy, while sensation is preserved, the lower muscles of the hyoid bone are not involved, and the movements of the head remain intact. Spasm as well as paralysis may be the cause of limitation of movement in all. The author gives a brief account of a number of cases of nervous affections of the tongue which have come under his observation.

Symptoms of Cancer of the Stomach.

Marelli (Gazzetta Degli Ospedali e Delle Cliniche) discusses the variety of symptoms presented by patients with cancer of the stomach(Dyspepsia, dilatation of the stomach, gastric atrophy, chronic gastritis. gastric ulcer, stenosis of the pylorus, localized peritonitis, etc., all have symptoms which resemble beginning cancer of the stomach, and even anæmia, leucæmia, malaria, hysteria, and other diseases may simulate cancerous involvement of the gastric tissue. The presence of a tumor is always a diagnostic sign of great value, especially when accompanied by other characteristic symptoms. It must be remembered, however, that cancer of the stomach is a disease which varies so greatly in its manifestations. that it cannot be described under a single schedule of symptoms. In support of this the author cites four cases, which are peculiar in their symptomatology.

In the first case reported none of the characteristic changes was found on examination of the gastric juice, and the picture of the disease greatly resembled anæmia due to ulcer of the stomach. There was, however, a change of taste; an aversion for meat; an absence of the characteristic shooting pain. etc.; which suggested something else than ulcer. The second case was noteworthy on account of the absolute absence of vomiting which logically would be expected in this instance, on account of the pyloric stenosis. In the third case there was a very marked anæmia, but no definite

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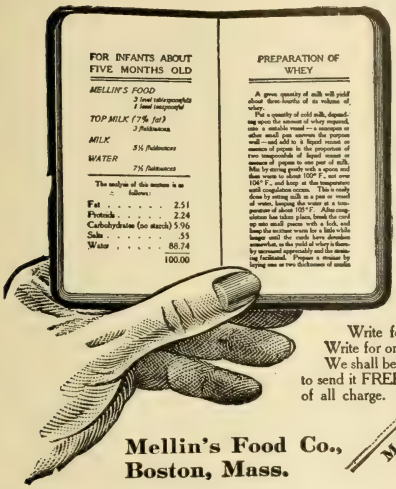

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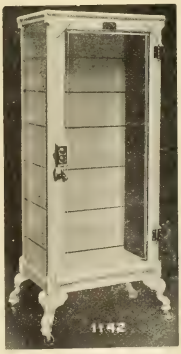

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signs on the part of the stomach, except a slight difficulty in digesting solid food and a continuous dull pain between the scapulæ.

In the fourth case, there was an intermittent febrile movement, a very rare symatom in cancer of the stomach. The fever was due probably to the toxines of cancer, but until we know the cause of carcinoma, we cannot tell the true cause af this rise of temperature.

Toxicity of Human Milk.

Frencois (Jour. de Med. de Paris) states that he has observed cases of nursing infants who were unable to nurse their own mothers without vomiting the milk, but who were well able to take the milk of a wet nurse or get along on artificial feeding. These cases he believes to have been due to the carrying over into the mother's milk of minute amounts of poisons generated in the system of the mother by different forms of auto-intoxication. Constipation, dyspepsia, pregnancy and other such influences contribute to render the milk toxic. It has been shown that diphtheria antitoxin, coloring matters, and other materials are carried over into the milk in this way. Treatment of the mother would be indicated in these cases rather than that of the infant.

Traumatic Rupture of the Intestines.

Battle (Edinburgh Medical Journal) reports a number of interesting cases showing the difficulty of diagnosis. In the first instance the blow was not quite sufficiently severe to make exploration a desirable thing in the absence of symptoms. A boy, fourteen years old, slipped and fell, striking his abdomen on a post. He fainted and was taken home, where he complained of great pain in the abdomen, nor could he pass water.

When brought to the hospital he was still suffering from shock. He complained of pain in the lower part of the abdomen. There was slight rigidity about the lower part of the left rectus and tenderness about the umbilicus, which appeared to be superficial. A considerable quantity of clear urine was drawn off. The pulse was of small volume, the temperature 99 degrees. On the following day the temperature, which during the night rose to 103 degrees and the pulse to 120, fell to 101 degrees, with a pulse of 110. Twenty-four hours after the accident he was comfortable, with very little pain and no rigidity. Pain recurred in a few hours, followed by vomiting, rigidity, and rapid pulse. Celiotomy was performed, revealing a perforation seven inches from the commencement of the intestine.

Battle cites a rather remarkable case in which the patient was subjected to operation for peritonitis due to injury. A hernial sac was explored and was found to contain a piece of potato. The opening through which this escaped was of large size. Though this opening was not found the patient recovered.

The writer states that the only chance of recovery is by early operation. He notes that after traumatism the rupture is usually high up in the jejunum. He cites some cases to prove his contention that at the time of operation the bowel should be sutured after resection of the contused edges as opposed to the formation of an artificial anus. Of the thirty cases under observation at St. Thomas' Hospital from 1887 to 1906 inclusive, five were not submitted to operation; twenty-five were operated on. Of these six recovered, a very high percentage of recoveries.

Has Ulcerative Typhoid Imflammation of the Throat Diagnostic Value?

Blum (La Semaine Medicale) states that the ulcerations of the throat which are met with in typhoid fever are characteristic in their aspect and site so that they can hardly be confounded with any other affection of the pharynx. They are usually seated on the upper part of the anterior face of the anterior pillars of the fauces, more rarely on the posterior pillars, on the uvula, or on the velum palati. Both sides are frequently attacked simultaneously and symmetrically; occasionally the lesion is unilaterial. It is not exceptional to see several ulcerations scattered over the velum and the pillars. The ulcers are oval, placed obliquely downward and outward, following the direction of the pillars, of variable size, superficial, sharply cut, with red prominent margins and grayish base, not covered by a falte membrane, but only with a little mucus, and bleeding readily when touched. They may appear within a quarter of an hour and disappear gradually. On the average they last about ten doys. In seventy-six cases the author met with these ulcerations in fifty-seven men and nineteen women.

Clinical Popularity.

Llewellyn Eliot, A.M., M.D., Surgeon to Providence Hospital and Eastern Dispensary, and President of the Medical Association of the District of Columbia, etc., Washington, D. C., in an article read before the Section on Obstetrics, said: "In irrigating these cases, we may use the solution of bichloride of mercury, carbolic acid or any other medication which individual preference may suggest; for my part, I employ a solution of Tyree's Antiseptic Powder, which is non-poisonous." What can better attest its high reputation than the fact that recognition is given by so high an authority? A trial package will be mailed free of charge to physicians if they will send their name and address to Mr. J. S. Tyree, Chemist, Washington, D. C.

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Polioencephalitis After Scarlet Fever.

Pastore (Giornale Internazionale delle Scienze Medichi) describes the case of a girl, aged 6, who during an epidemic of scarlet fever, was suddenly attacked with chills, headache, debility, high fever, and angina. The tongue had the peculiar raspberry aspect; the glands of the neck swelled, and a typical rash appeared. During convalescence, 4 weeks after the onset of the illness, she became aphasic. There was paresis of the facial nerve and of the left arm and leg. The aphasia and facial paresis disappeared in some days, but the arm and leg were more severely damaged. After 5 months the leg was slightly atrophied, the arm was more atrophied, its muscles were contracted, and it was about 2 in. shorter than the right and presented athethosic movements:

Exophthalmic Goiter in Relation to Obstetrics and Gynecology.

Croom (Edin. Med. Jour.) says that while exophthalmic goiter is a comparatively frequent disorder of women, its combination with pregnancy is very rare, as is shown by its absence from the recprds of 15,000 hospital cases, while he has seen only twelve personally. The influence of pregnancy upon exophthalmic goiter is very uncertain, and in the majority of cases it aggravates it. The effect of exophthalmic goiter on pregnancy is practically *nil*, and most pregnancies complicated with exophthalmic goiter follow a regular even course. Of the accidents that occur the most frequent is hemorrhage, and occasionally abortion. The relation between pelvic disease and exophthalmic goiter is rare, and the effect of exophthalmic goiter on the reproductive system is in recent cases to cause irregular menstruation, mostly in the direction of menorrhagia, while in very advanced cases it may cause amenorrhea. It is apparent, therefore, that girls suffering from exophthalmic goiter need not be precluded from marrying and from pregnancy. If pregnancy occurs there is no reason, except in advanced cases, to interrupt the pregnancy, even in spite of the fact that the children of women with exophthalmic goiter may be expected, according to some authorities, to develop neuropathic manifestations.

Results of Alcohol Injections in Neuritis and Neuralgia.

Fischler (Munchener Med. Woch.) tried this method of treatment in obstinate sciatica and trigeminal cases. One to one and a half cc. of a 70 per cent. solution of alcohol was injected into the nerve at intervals of two to eight days. In sciatica cases the hypodermic needle was inserved and the nerve felt for, at the point of greatest local tenderness or where the nerve emerged from the pelvis, between greater trochanter and ischium, its finding being signalized bo a severe pain down the legs. After the nerve was found the needle was slightly withdrawn, to make certain it was not in a vesself the fluid was then injected slowly and the patient carefully watched. The latter at first experienced a severe pain down the entire leg, or a burning or tingling sensation, or a feeling of numbness, which disappeared in a few moments or hours, and with it the sciatica pain as well. Of twelve cases, four were absolutely cured, four unimproved, and the remainder partly improved. The fact that they were not all cured he attributes to insufficient treatment, and treatment not properly carried out. Six cases of supra and infraorbital neuralgia were entirely cured. In the last sciatica patient subjected to treatment, a paralysis of the perineal region set in after the fifth injection, which was made with the perineal nerve, it took one year to recover. This case and three of Erb's, one of facial and two of tibal toxic neuritis, caused by alcohol injections, induced the author to abandon this mode of treatment in diseases of nerves containing motor fibers, while he continues it in diseases of nerves containing only sensory fibers. The degeneration which the alcohol sometimes causes of the nerve into which it is injected makes its use ideal in sensory nerve affections. The author does not advise against alcohol injections, but warns against their dangers which, after further experience in regard to method and indication, may possibly be avoided.

Blackwater Fever.

Prout (British Medical Journal) says the group of symptoms known as blackwater fever, is due to a special condition of the blood, produced by repeated attacks of malaria—a condition in which, possibly through the long-continued strain on the blood-making organs, there is a lowered vitality of the red blood-cells, the connection between the hæmoglobin and the stroma is weakened, and then some exciting cause produces a sudden hæmolysis, with the resulting phenomena of blackwater fever.

The exciting cause is in some instances undoubtedly quinine, in others chill (as in the paroxysmal hæmoglobinuria of temperate climates), and in others toxins absorbed from the intestinal canal. After the hæmolysis has taken place, the action of dissolved hæmoglobin in the blood must be dealt with; it is irritating and produces various secondary symptoms, among them jaundice and nephritis. It is, therefore, evident that, when a case of blackwater fever comes

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under observation, the mischief is already done.

In treatment two things must be dealt with—the loss of blood, which may be enormous, and the presence of hæmoglobin, dissolved in the plasma. The indications for treatment are as follows: (1) Get rid of the morbid products. Empty the intestinal canal thoroughly with calomel. This relieves the liver and has an antiseptic action on the intestinal canal. Aid elimination by the skin and kidneys by means of the administration of diuretics and diaphoretics. But where vomiting is constant, the stomach must be left severely alone, a large, high, hot enema being given each morning. (2) Counteract the malarial element in the attack. If malarial parasites are found in the peripheral circulation, at least one dose of quinine should be given, preferably by hypodermic injection. If there is any recurrence of the hæmoglobinuria, it should not be repeated. (3) Support the patient's strength, but avoid over-stimulation with alcohol. (4) Alleviate any distressing symptoms. Of these, vomiting is the most constant, and it is best relieved by washing out the stomach, if the ordinary remedies (oxalate of cerium, etc.) fail. For the sleeplessness, morphine should be given.

The after-treatment is, of course, directed against the anæmia. Arsenic and a change of climate are most beneficial. A single attack of blackwater fever can be completely recovered from and leave no ill effects.

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Internal Medication in Gonorrhea.

Piket (Berichte d. Versammlung Deut. Naturforscher u. Aerzte) believes the treatment of gonorrhea taxes all the therapeutic resources at our command, among which internal remedies by no means rank as the least important. Of the latter, the balsams until lately held the dominant position. But in the large doses in which they have to be given, they disturb the gastrointestinal tract and, by the excretion of resinous acids, irritate the kidneys, while normal renal function is indispensable in the internal treatment of gonorrhea. Occasionally, too, a balsamic erythema or urticaria is observed. As, moreover, the balsams are powerless to prevent the development of gonorrhea, it was most desirable to find a more effective adjuvant to, or, under proper circumstances, substitute for the injection treatment:

These efforts have found successful culmination in arhovin, an addition-product of diphenylamine and esterified thymylbenzoic acid. By reason of its strongly antiseptic components, arhovin possesses a marked disinfectant action, which after its exhibition is still greater, as the remedy—*i.e.* its decomposition products—renders the urine acid, clears and imparts bacterio-inhibitory properties to that excretion, and thus combats the pus cocci. Arhovin is not toxic, has no harmful effect on the stomach or intestines, and does not irritate the kidneys. According to Burchard-Schlockow's work, it is absorbed in 20 to 25 minutes and is excreted in altered form. The acidity of arhovin urine is so marked that usually it remains acid for 14 to 18 days. The author's experience with it extends over two years and includes a large number of severe cases, both of acute and chronic gonorrhea, gonorrheal cystitis and complications in the female. He summarizes his opinion as follows:

"Arhovin is readily taken and well borne, has no deleterious effect of any kind, limits secretion, hinders gonococcal growth, and possesses a marked sedative action. It is a valuable addition to the armamentarium—a remedy that no physician will want to dispense with, for a test leads to its permanent adoption."

Phimosis as a Cause of General Disturbances.

Witzenhausen (Munch. medizin. Woch.) says that while attention has already been directed to phimosis as a possible etiological factor in the causation of urinary disturbances and nervous symptoms in children, it has not been recognized to a sufficient degree that other conditions may also be referable to this abnormality of the prepuce. The writer reports a number of cases in which constipation in infants was relieved by the operation of circumcision, and explains the beneficial effect of the procedure as follows: As a result of the stenosis of the preputial opening the act of urination is rendered difficult, and ultimately the bladder is imperfectly emptied, becomes dilated, and a more or less serious state of overflow incontinence results. As a consequence of this the pelvic organs are crowded by the enlarged bladder, the rectum is pressed upon, and constipation results. In consequence of this early perversion of function, more or less serious and persistent disturbances are caused, which may require a long time to subside, even after the initial source of the trouble has been relieved by circumcision.

Rectal Injections in Peritonitis.

Moynihan (Lancet) has given a thorough trial to the method of treating diffuse septic peritonitis by means of the introduction of large quantities of fluid into the rectum, and he concludes that there are few recent therapeutical measures equal to it in value. He has thus treated 19 consecutive cases of general peritonitis, with but two deaths, and feels that several of the patients recovered solely because of the continuous administration, by the rectum, of saline solution over a period of two to four days after the operation. He also found the procedure of great value in cases of partial and complete gastrectomy. He uses a rectal tube one foot in length, made of pewter, and with a slightly bulbous extremity. It is perforated at the ends and on all sides, so that the fluid can easily pass in and flatus pass out. The tube is introduced about two or three inches, and at the anus is bent sharply so as to lie easily on the bed. It is connected with the flask holding the saline solution by means of a long rubber tube. The flask is immersed in a bath of hot water, kept at the proper temperature by means of a lamp. The best temperature is from 100 deg. to 102 deg. F. If it is hotter than this it is not retained well. The flask should be elevated so that its base is from three to six inches higher than the rectum. The saline begins to flow and continues to flow at the rate of about a pint an hour. If a feeling of tightness or distress is caused, the flow is too rapid. If the rate of flow be properly regulated and the temperature of the fluid not altered, from seven to ten pints can be introduced without interruption. If the fluid acts as an enema, the tube can be replaced after the bowels have acted. Care and constant attention on the part of the nurse are necessary to make the administration a success. The change in the ap-

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pearance of a patient who is absorbing fluid so rapidly is very remarkable. The pulse improves, the eyes grow bright, urine is passed in large quantities, and the skin becomes moist. The patient's aspect is one of comfort and contentment.

Abortion by Means of Roentgen Rays.

Fraenkel (Zent. f. Gyn.) made use of the x-rays in obtaining an abortion in a case in which, on account of the presence of tuberculosis, it was considered undesirable for the young mother to continue her pregnancy. The rays were used in the third month of pregnancy for twenty-five sittings of five to ten minutes each. The author had experimented on animals as to the effect of the x-rays in pregnancy, and found that there occurred a degenerative process of the ovaries with changes in the lumen of the blood vessels and capillaries. These changes consisted in contraction and widening of the lumina of the vessel. He believes that the effect on pregnancy is caused by degenerative changes in the ovaries and glands rather than by its effect on the fetus. In the case of his patient the author believes that changes in the circulation may have affected the placenta, causing it to become loosened. There was marked bleeding at the time when the spontaneous abortion took place, which might indicate such changes. In this patient as well as in the

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animals experimented upon the rays produced a desire to urinate amounting to incontinence. Sterility was produced by the rays when applied for longer periods than when used for therapeutic effect. The author hopes that this use of the rays may aid in the cure of cases of osteomalacia, and thinks that they should be tried before castration is resorted to.

Mammary Lines in Men and Variations in the Areas of Cardiac Dullness.

Tchigaieff (Roussky Vratch) examined 235 soldiers with a view of determining the variations in the distance of the mammary from the sternal lines, and the variability of the areas of cardiac dullness. The existence of these variations in health is recognized by a number of writers, and several have compiled data thereon, but none on such an extensive scale as the present author. The weight, height, distance of nipples from the median line, height of nipples, and the absolute and relative cardiac dullness were measured. It was found that the percentage of cardiac murmurs discovered in the patients examined increased as the boundary of absolute dullness approached the median line. On the other hand, there were cases in which the cardiac dullness went over two and one-half centimeters over the median line, while the heart was perfectly sound, though enlarged. There were also well marked cardiac murmurs with cardiac areas one and one-half to two centimeters within the mammary line. These anomalies depended upon the actual distance of the mammary from the midsternal line. Normally the absolute dullness varies from six to 7.5 centimetres. When the absolute dullness exceeds 7.5 centimetres, a suspicion of enlargement of the heart may be entertained. The relative dullness in health is from ten to eleven centimetres in the transverse diameter. When it exceeds 11.5 centimetres a suspicion of an enlarged heart may be entertained.

Bacteriology of Congenital Syphilis.

Bab (Munchener medizinische Wochenschrift) examined fifty cases of congenital syphilis bacteriologically, microscopically, and biologically, with the following results: Agreement between the demonstration of spirochætæ and antigen positive in seventeen, negative in fifteen. In one case spirochætæ were demonstrated, although the antigen reaction was questionable; in another there was a slight antigen reaction, although no spirochætæ could be demonstrated. In twenty-five positive cases of syphilis biologically studied spirochætæ were demonstrated in twenty, not found in five. In these five cases antigen also was regularly wanting. In eight questionable cases spirochætæ were present six times, while in a positively not syphilitic control case no spirochætæ could be found. As regards the question of antigen in fœtal organs, it was positive in sixteen cases out of twenty-five certainly syphilitic, eight times negative, and once questionable. In eight doubtful cases the reaction was three times positive, five times negative. The organs of two certainly not syphilitic children contained no antigen. The placenta in eight positive cases of syphilis contained antigen. In one doubtful case the reaction for antigen in the placenta was questionable. The presence of antimaterial in the fœtal ascites was demonstrated only in one doubtful case. Whether both mother and child were syphilitic, or either the mother or the child was immune, antimaterial might be found in the mother's milk. In a positive case of syphilis antigen was found in the mother's blood; in a doubtful case it was wanting, as well as antimaterial. In ten positive cases of syphilis the semen was examined nine times for spirochætæ, three times for antigen, once for antimaterial; all the results were negative.

Disturbance of the Color Sense by Focal Disease of the Brain.

Lewandowsky (Berliner klinische Wochenschrift) reports the case of a man, fifty years of age, who, while sitting at his desk and writing, became suddenly aware that he could no longer read or write. He left his office at once and was astonished when on the street to find that the signs all looked alike and that he could not read the inscriptions. After some time he was able to find the house in which he lived, but was unable to make himself understood by the people. As it was impossible to understand him, he was taken to the hospital, where he presented the typical picture of Wernicke's sensory aphasia; no one could understand what he tried to say. The case presented nothing special until after the lapse of three or four weeks. The symptoms were improving at that time, when first a right hemianopsia appeared, which later became a hemiamblyopia. But this did not interfere with the patient's recognition of forms and of objects, and there was no pyschical blindness. In the color test he confounded the words irregularly, could not tell the color of well known objects, could not tell the color of snow or of coal, but could distinguish darkness from brightness. Eventually the patient recovered until the color sense was present and completely intact.

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as soon as a severe loss of blood has occurred during pregnancy, that measures be taken to protect the woman against a renewal of the hemorrhage. The patient should be kept tamponed for at least a week if labor does not come on. A rubber balloon is not feasible for so long a tamponade. Materials must be used that are sterile. Aseptic gauze is the best material for this purpose, but if that is not at hand gauze or wadding may be boiled in water to which has been added a teaspoonful of vinegar, which will make it styptic as well as aseptic. The rupture of the membranes is the best method of bringing on labor when this is possible, which is not always the case. The best means of stopping hemorrhage is a rapid version with dilated cervix. Extraction should not be at once carried out unless the cervix is dilated, on account of the danger of rupture of the cervix. Delay increases danger to the child and when a rupture of the cervix is not to be feared the child should be at once brought down. In central placenta prævia we must attempt to bore through the placenta so as to perform version.

Attempts at Abortion in the Course of Extra-uterine Pregnancy.

Guerdjikoff (Ann. de Gyn. et d'Obst.) has observed in less than a year three cases of extra-uterine gestation in which attempts had been made to produce abortion during a supposedly normal pregnancy. Each resulted in the death of the patient. In the first case the abortive measures were employed at about the sixth week of pregnancy, and septic infection took place as a result. In the second case the attempt was made five weeks after the last period. Chills appeared some three weeks later, followed by abdominal pains and tubal rupture ending in peritonitis. In the third case the abortion was attempted at about the seventh week of pregnancy. Five days later rupture of the tube occurred and fibrinous peritonitis. The immediate results of attempts at abortion in such cases seem to be slight abdominal pains corresponding to uterine contractions, and more or less abundant loss of blood. The tubal abortion occurs some time later as a result of infection. Rupture into the peritoneum is followed by pelvic or general peritonitis and death. A marked endometritis is found at autopsy and we may suppose that infection has extended through the cavity of the uterus and thus reached the sac of the extra-uterine gestation. Intervention in such cases can be of use only when it is undertaken very early, before the symptoms of peritonitis have set in.

Fatty Degeneration of the Uterus in Pregnancy.

Ciulla (Zent. f. Gyn.) has made a histological examination of three placentas removed at the time of Cesarean section by Bossi; one at the middle of the ninth month, one in the eighth month, and one eleven days over the normal period of delivery. He finds that during the last two months of pregnancy there is a fatty degeneration of the uterus which acts upon the hypertrophied muscle fibers of the uterus. A fatty infiltration of the hypertrophic fibers takes place and they are reduced in volume until they take on their normal dimensions and form. This fatty degeneration at the end of pregnancy explains the muscular excitability of the uterus at the time of delivery. It also accounts for some cases of subinvolution and of hyperinvolution of the uterus. In delayed labor this is the etiological factor through an excessive fatty degeneration, while in premature labor this fatty degeneration fails to take place. This fatty degeneration, allowing the globules to pass into the blood, may serve to produce the first secretion in the blood. The acute fatty degeneration of the puerperal period may cause the secretion of milk in the breasts.

Treatment of Eclamptic Convulsions by Lumbar Puncture.

Audebert and Fournier (Ann. de Gyn. et d'Obst.) describe encephalic lesions as very frequent in eclampsia; such are cerebral edema, congestion, meningeal hyperemia, and large and small hemorrhages. In many cases the cranial sinuses are much dilated. Cerebrospinal hypertension exists both before and during the convulsive stage. If the convulsions are the result of this hypertension the subtraction of fluid from the lumbar region of the spinal canal should relieve the symptoms. Careful observations of the pressure in the spinal canal have shown it to be very high. Also, when puncture is made, the fluid flows out bloody and with a considerable force. The author has treated two cases by lumbar puncture and has collected forty-four other cases. The object of the treatment is not to act on the kidney condition, but simply to diminish the cerebral pressure and combat symptoms due to that condition. A decompression of the nervous tissues is brought about and a favorable effect on the convulsions and coma is observed. One of the author's cases recovered after having had six seizures before puncture. Afterward she had three much less severe attacks, and coma was less deep. The second case died of complications, although the brain symptoms were much benefited by the puncture. The authors believe that while this is not

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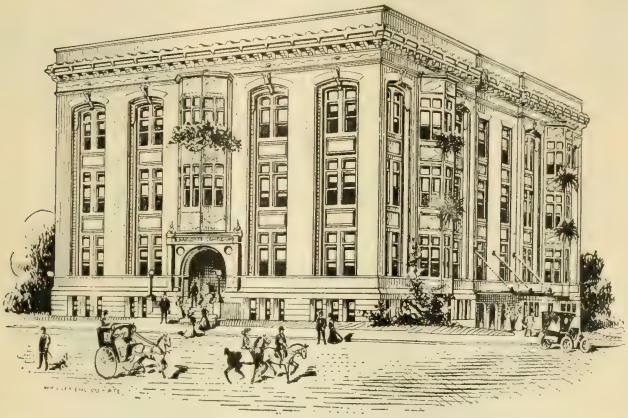

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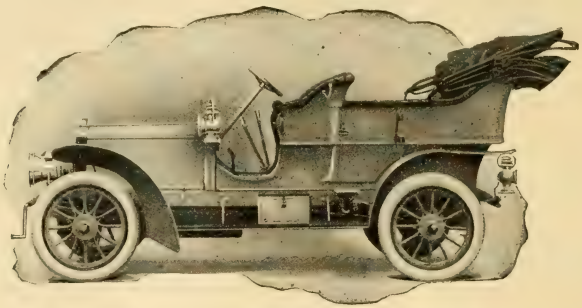

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the latter the more frequently and with less disastrous results. The most promising cases are those in which there is a precancerous adenomatous period. Unfortunately the true nature of these growths is often not determinable until after operation, when the tumor is submitted to microscopical examination.

Infantile Paralysis.

Rankin (The Practitioner) follows Laborde in dividing this disease into (1) an initial stage not exceeding a week; (2) a stationary stage of a week to a month; (3) a regressive stage, from one to six months; and (4) a chronic stage, with atrophy and deformities. He takes for its pathology the

summary of Byron Bramwell, as follows: 1. The lesion is acute inflammation of grey matter in the anterior horn. 2. It is usually confined to this part of the cord. 3. It involves chiefly the lumbar and cervical enlargements, some or all its segments being involved. 4. The lumbar enlargement is the more frequently involved. 5. The inflammation may be very slight or very severe and destructive to the multipolar cells. 6. The inflammation temporarily arrests or permanently destroys the function of the nerve elements, with paralysis to the muscles which they supply. 7. A destroyed nerve cell is never restored. 8. Degeneration and atrophy of the axis cylinder process in the motor nerve endings follow destruction of a norve cell in the anterior horn, and also the muscular fibres with which the nerve endings are connected.

Effects of Wine Upon Typhoid Bacilli.

Sabraze and Mercandier (Annales de l'Institut Pasteur) report that by experimentation they had found that claret wine kills the bacillus of Eberth in two hours, in its pure state. and in four hours when diluted one half with water. White wine kills the same microorganisms in twenty minutes. Champagne destroys them in ten minutes. Used as a disinfecting agent for drinking water, which, owing to failure in boiling or imperfect filtration, is suspected of containing pathogenic germs, the mixture of wine and water should be made six hours in advance of the meal in the case of white wine, or twelve hours in the case of red wine, instead of diluting the wine at the table. The old established practice of diluting the wine in the cask believed to be followed by some "wine dealers" is therefore not without a certain justification.

Is the Normal Urinary Bladder Permeable for Bacteria ?

Vincent (Ctrbltt. f. Bakteriol. u. Parasit) for the purpose of determining the permeability of the bladder injected an infusion of pseudotubercle bacilli (of guinea pigs) into the urinary bladders of several guinea pigs. The animals died from 15 to 28 days later, the autopsy showing, in the first place, the intact condition of the bladder; the retrovesical lymph glands and the inguinal glands presented swelling and caseous disintegration; the lungs were interspersed with numerous nodules; a few nodules of the size of a millet seed were also found a few times in the kidneys, the spleen and on the surface of the liver. Further experiments showed that the propagation of the germs took place by way of the lymphatics. The possibility of absorption by way of the urethra cannot be admitted, and neither do injuries of the vesical and urethral epithelium enter into consideration as avenues of entrance. The author assumes that the normal bladder is permeable for certain bacteria.

About the Action of Antitoxins in the Living Organism.

Wassermann and Bruck (Deutsche Med. Woch,) reports experiments instigated by the introduction by Behring of a mystical, vital third factor into the inter-action of toxin and antitoxin. The authors injected into guinea pigs a mixture of tetanus toxin and antitoxin just neutral to these animals. If they preceded this injection by an adrenalin injection at the same site and thus produced a local capillary contraction, the animals died of typical tetanus. Under these conditions the toxin was taken up by the peripheral nerve endings and traveled along the axis cylinders to the centers, while the antitoxin did not find its way into the circulation. In the organism, therefore, a separation of the toxin and antitoxin had occurred. If, however, the antitoxin, previous to the injection, had been in contact with the toxin for two hours, the binding of one of the other was so strong that in spite of the barring of the road of the blood circulation no separation was noticed. Here, also, when the solutions were concentrated, the binding occurred in a shorter time. These experiments strongly point to the correctness of Ehrlich's position, viz., the antitoxin by chemical combination keeps away the toxin from the lixing and susceptible cells. There is no unknown or third factor taking part in this process.

Retroversion of a Gravid Uterus Simulating an Extra-uterine Pregnancy. Laparotomy.

Lunn (West London Med. Jour.) describes the following case: The patient was 27, a multipara, and was admitted to the hospital suffering from severe uterine hemorrhage and collapse. She thought herself pregnant three months when suddenly, three weeks previously, she was seized with a severe pain in the lower part of her abdomen with some loss of blood, and had to take to her bed. She got up at the end of a week, when the bleeding returned. At the end of the second week the pain and bleeding returned, causing her to feel very ill and faint. On admission to the hospital she was very anemic and collapsed with a pulse of 120 and a very anxious expression. The abdomen was distinctly more prominent on the left side and measured from the anterior superior spine of the ilium to the umbilicus one inch more than the right. There was tenderness on this side.

The uterus seemed to be enlarged to the

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size of a four-months' pregnancy. There was no visible discoloration of the vulva. In the left fornix there was apparently felt a distinct, large, soft mass in which there were no definite contractions. This mass was lobular in outline, tender on palpation, and appeared distinct from the uterus. By the rectum the same mass was felt projecting against the bowel and distinctly to the left of the middle line. The diagnosis of extra-uterine gestation was made.

After watching the case for some days the general condition did not improve and the patient begged for relief. A laparotomy was performed but no extra-uterine gestation was found, only a retroverted gravid uterus. Shortly afterwards she aborted a three months' fetus. The patient made a good recovery.

Carcinoma of the Superficial Mucous Membrane of the Uterine Cavity.

Schauenstein (Gyn. Rund) tells us that pure carcinomata of flattened epithelium may involve the mucous membrane of the uterine cavity or of the cervix. Such carcinomata may spread over the lining of the body as secondary growths. Hence we must divide the carcinomata of flattened epithelium into two groups: first, primary growth; second, secondary growths which have spread from a primary carcinoma of the cervix. This classification is made as a result of examinations of the cell elements of the growths, as well as of the clinical symptoms present. In one case cited by the writer he made examinations of the entire body of the uterus seriatim, and found that there had been no involvement of the cervix at all. The changes in the mucous membrane were of two kinds. There had been a chronic purulent endometritis, which resulted in small-celled infiltration of the mucous membrane, and a true pyogenic membrane was formed. Afterwards the entire lining was destroyed in some places and the characteristics of cylindrical epithelium were lost. A growth took place of cancroid pearls having the characteristics of flattened epithelium, and a typical horny epithelioma formed. Hence the author believes it to have been a primary cancroid of the uterine body. There were three areas of growth separated from one another, and several smaller ones at other points of the lining, due to the implantation of particles of cancerous material separated from the larger areas.

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Post-Typhoid Tuberculosis.—Lesieur and Jaubert (La Presse Medicale) consider it proved that typhoid fever and tuberculosis can coexist at any stage of either disease, but most of the infections that appear after the typhoid patient has begun to convalesce may be considered as infections that existed when the typhoid began, and were stimulated by that disease. Hence, it is only clinically post-typhoid. The prognosis is serious in such cases. The tuberculosis may affect any organs, the bones being frequently affected, the lungs, intestines, and meninges. Tuberculosis of the lungs may occur in any anatomical form. The best division of these cases is into slow and rapid cases, or into early and late tuberculosis. Early tuberculosis appears in the first days of convalescence, the first symptom being incomplete defervescence, and this is a very bad prognostic sign. The temperature rises at evening, anorexia, vomiting, and loss of flesh begin, and physical signs in the lungs soon appear. Evolution is now very rapid. If the trouble shows itself late in the convalescence, the same series of phenomena begins, but progress is much slower, and treatment is much more successful. When a tuberculous pleurisy appears, the tuberculosis acts much as an injury would. The first symptoms are a renewed rise of temperature after defervescence of the typhoid fever. An abundant effusion is a factor favoring the tuberculous origin of the pleurisy. Laboratory diagnosis is of great value. The appearance of consolidation at an apex is also an aid to diagnosis. Lymphocytosis is also a characteristic of tuberculosis. The conclusions arrived at by the authors are that we should protect our typhoid fever patients from contact with tuberculous germs by isolation of the patient and the efficient disinfection of the wards.

Examinations of the Hypertrophied Prostate.—Raski (Wien. klin. Rundschau) having examined histologically serial sections of 26 prostates arrives at negative conclusions. He is unable to agree with Ciechanovski and Rothschild that the hypertrophy is caused by inflammatory narrowing of the ducts and consequent retention of the glandular contents, and he is also unable to verify the intra-prostatic sphincter hypertrophy theory of Motz and Peronau. In 18 of his observations there were positive findings opposed to the teaching of Finger, namely, that the hypertrophy is the consequence of chronic prostatitis. Raski inclines rather to the view of Bier that the hypertrophy is not the result of hyperemia, but that both hyperemia and hypertrophy are due to some unknown processes, and he reasons that, because the types of hypertrophy vary so much, the etiology also must vary.

Investigations of the Dorsal Foot Reflex (Mendel-Bechterew) Reflex.—Osann (Munch. Med. Woch.) from a number of careful investigations, conducted upon the abundant material of the Bicetre Hospital, concludes that the normal extension-reflex constitutes an idio-muscular reflex, which is determined by tapping upon the muscular bellies of the extensor brevis. The pathological flexion-reflex, and the idio-muscular reflex, may occur side by side. In these cases, the flexion-reflex is produced by way of the distal segments of the dorsum of the (metaphalanges), or by way of the lateral margin of the foot. The existence of the extension-reflex may be utilized for the estimation of the strength of the abnormal reflex (partial, or positive, Mendel-Bechterew reflex). The patological flexion-reflex appears as a rule together with Babinski's phenomenon, in the spastic pareses; occurring alone in exceptional cases only. These two pathological reflexes are fundamentally distinct. The phenomenon described by Babinski is a cutaneous reflex, whereas Mendel-Bechterew's reflex seems to be dependent upon a hypertonic state of the flexors of the toes and foot.

Appetite.—Goodall declares (Lancet) that hunger originates in the tissues generally and not in the stomach in particular, for hunger may exist after the stomach has been excised, and normally in some animals when their stomachs are full of food. The sensation is simply referred to the stomach as the organ in which appetite is naturally appeased. Appetite is a desire or inclination for food, which in the newborn child, at any rate, is invariably begotten of hunger. The infant has no likes or dislikes about food, for it has no accumulated experience on the matter. We come into the world with only two complete sensations: the vague internal sensation, hunger, and the almost equally vague cutaneous sensation touch. The special senses are chiefly of post-natal development: taste, smell, sight and hearing are perfected only after some considerable time. As the senses are developed the experiences of food are stored up, definite likes and dislikes for its varieties are formed, and the primitive hunger-appetite becomes modified by an important psychic factor, visual and olfactory not less than gustatory experience being concerned. There are four factors in the fully evolved appetite: the purely primary physiological—hunger; the purely psychological—anticipation; the psychophysiological, in which distance receptors (the end organs of sight, smell and per-

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Annual meeting at Anderson, S. C., April 16 and 17, 1908.
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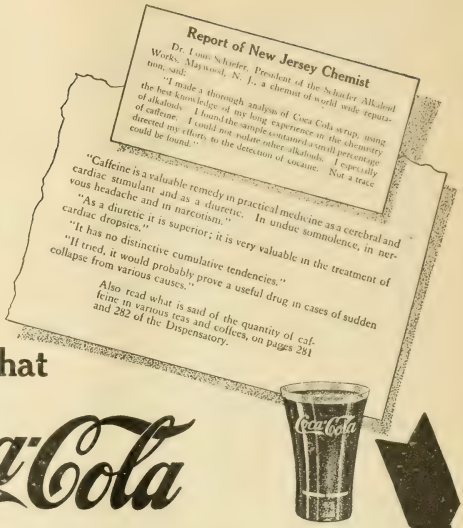
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haps hearing) are stimulated and incite previously formed likes and dislikes; and, lastly, the physiologicopsychic factor due to the non-distance receptor, the end organs for taste being stimulated by the introduction of food into the mouth. The end of the appetite which has such complex foundations is to initiate and insure a secretion of suitable digestive juices and so secure good digestion. The writer submits a summary of the physiology of the secretory processes connected with digestion, and emphasizes the advantage of appealing to the psycho-physiological factor in appetite in order to secure the great nutrient benefits of food. In feeding sick persons careful preparation of food is of especial importance.

Throat Affection in Cerebro-Spinal Meningitis.—Westerhoeffer believes (Brit. Jour. Chil. Dis.) that the tonsillar affection is the primary one in this disease. This lesion might easily escape observation, as the inflammation is often situated in the upper part, behind the velum palati and not on the tonsils themselves. The throat should be examined in all suspicious cases. Pneumococcal and streptococcal meningitis originate in the nares, but not the meningococcal or the tubercular forms of the disease. All attempts to eliminate the disease by means of gargles and nasal douches have proved unsuccessful, nor is removal of the tonsils followed by good results. A large bleeding surface in the latter operation only makes more room for the organisms to enter. In a case cited the throat affection was present during the first days of the disease only, as an intense redness and œdematous swelling, and disappeared very quickly. The germs entered, so the writer believes, with the respired air and settled on the first suitable spot, the infection being spread by the expectorant material. Though in 90 per cent. of these cases the disease occurs in children, they do not generally spread the disease, because they do not expectorate. The source of infection is the sputum of infected adults. In all cases the meningococcus can be found in the nasopharnyx. Lumbar puncture, at best, only mitigates the symptoms. Meningococcus serum has been recommended in the acute stage, either subcutaneously or by the rectum or by the spinal column; the last method of procedure is most likely to bring about good results. In the second stage of the disease cerebral surgery is preferable to injections of serum; by trephining in two places the descending cornu can be drained.

Hematocolpos.—De Salm (La Clin.) considers that hematocolpos is a rare affection, that it does not occur unless a distinct part of the vagina is present, with healthy uterus, tubes, and ovaries capable of performing their natural functions. It is caused by a malformation of the vaginal canal or of the external genital organs. The error of formation is never very great, as it would then promote atrophy of the internal genitals, especially of the ovaries, and menstruation would not occur. The obstruction is commonly due to an imperforate hymen, or to a band obstructing the vagina, or even to constriction or stenosis of the

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vaginal canal. The origin of the latter is generally due to an inflammatory or specific ulceration of the vagina, or a chronic vaginitis. Cicatricial constriction has followed injuries received during labor; or an attack of smallpox or typhoid fever. It may also be due to cancer obstructing the vagina. Hematocolpos first manifests itself by attacks of pain, which occur at regular periods, the patient being quite comfortable in the intervals, a hypagastric tumor appears and there is usually some nervous disturbance which may amount to neurasthenia. The pain is described as uterine colic, and may be accompanied by rectal or vesical tenesmus and discomfort about the vulva. There is a general constitutional disturbance. Accessory hemorrhages are noted, such as epistaxis, hemorrhoids, of hematemesis. Mental troubles, terminating in melancholia or mania, may complicate the situation. When hematocolpos is thought of, it is not difficult to diagnose; it must be distinguished from hematosalpinx, where the uterus lies between two well-defined swellings, and pregnancy and an ovarian cyst. Treatment is mainly surgical, an imperforate hymen is divided by a vertical, transverse or crucial incision, the accumulated fluid is evacuated and vaginal douches are given. When the obstruction is caused by the absence of the lower part of the vagina colpoplasty is required. The results are good.

Night Blindness.—Parsons (Lancet) reviews the principal features of retinitis pigmentosa. Routine examination shows that there is little disturbance of central vision. A view of the fundus in early stages in young patients shows a zone of retinal pigmentation in the neighborhood of the equator, spots shaped like bone corpuscles and aggregated along the perivascular sheaths of the retinal vessels. A ring scotoma, seldom complete, is also visible at this time. At a later stage the zone of pigmentation has extended both peripherally and centrally, and the field now shows uniform contraction, the peripheral area of vision having become abolished. The progress is usually very slow and central vision is seldom lost by the extension of the choroido-retinal disease to the macular area. Before this occurs a posterior cortical opacity appears in the lens, which, however, has much the same effect upon the visual acuity. This so-called idiopathic retinitis pigmentosa is a progressive form of chronic night blindness. It is an obscure disease in which heredity and the consanguinity of parents plays a considerable part. In reality the chorio-capillaris of the choroid seems to be first attacked, the retinal degeneration being secondary. The outer layers of the retina are nourished by the chorio-capillaris and in retinitis pigmentosa the inner layers show comparatively little change. These facts help us to a reasonable conjecture as to the exact causation of the night blindness. There is a chronic hereditary form of the disease which is stationary and shows no changes in the fundus. There are also acute cases. Syphilitic pigmentary retinitis represents in some respects an intermediary form between chronic night blindness and idiopathic retinitis pigmentosa. Malnutrition is an important factor in these intermediary cases. Still another form is that associated with jaundice in severe cases of which this visual disturbance is not uncommon. In some instances pigmentary changes of slight degree have been found in the retina and the condition has been dignified with the name ophthalmia hepatica; in most of the ophthalmoscopic signs are negative. It is noteworthy in this connection to recall the fact that bile salts are a solvent of the visual purple, as was shown by Kuhne. Night blindness is common in India among badly-nourished natives, especially during the periodic famines. It has been found that the symptom disappears when the patients are fed on liver, a fact difficult to correlate with the cases occuring with jaundice.

On the Incidence and Spread of Cancer.—Cheatle (British Medical Journal) has collected 58 cases in which cancer began in the skin of the hand. All but one (a rodent ulcer) were squamous epithelioma. In all but two the growth began on the back of the hand. The points of incidence in these 54 cases are as follows: In 28 of them the disease began either exactly over or to one or the other side of the second metacarpal bone. In 16 of these 28 cases it began on the radial side of this bone. In 22 of the 54 cases the disease began about the middle of the shaft of the third and fourth metacarpal bone. In 4 out of the 54 cases the disease began on the ulna side of the fifth metacarpal bone near the wrist. Out of the 56 cases 32 began on the right hand and 24 on the left. In 4 cases there were squamous epitheliomata of both hands (backs); in one of these patients there was in addition a rodent ulcer on the right temple. The majority of the cases are males. The author says that the clinical connection between external irritations and cancer is very noticeable. The incidence of cancer appears to him to be closely associated with those points at which nerves become cutaneous. Besides affecting the epithelium of the skin locally, external irritation also affects the posterior spinal root ganglion supplying that skin and its epithe-

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lium, so that changes in the skin which are observed when external irritation is applied to it may be partly, chiefly, or wholly due to impulses received or not received from the posterior spinal root ganglia.

Solitary Kidney.—Ward (British Medical Journal) enumerates the varieties of fused or solitary kidney, and says that during the routine examination of the body of a man of 30 years who died from valvular heart disease, he felt for the right kidney but found that the usual site of the organ on that side was quite empty and no trace of the kidney could be found, either in the pelvis or elsewhere. On dissection it was also apparent that neither the corresponding renal vessel nor ureter had been developed; there was not even a pad of fat or other tissue to represent the missing organ. The adrenal gland was present and in its usual situation, but was supplied with blood by branches of the diaphragmatic arteries only, the usual aortic branches being absent. The left kidney was twice the normal size, and weighed 12 ounces; it was of the usual bean shape with a smooth surface, and it lay in the normal position. A section showed chronic congestion, the result of a gradually failing heart; its vessels were at least twice the normal size, but the pelvis and ureter were normal both in size and shape. The bladder was healthy, but the trigone gave a very curious appearance, the result of the absence of the right ureteric opening, the plica ureterica, and the interureteric bar. The left ureter opened in the usual situation, and its orifice was healthy; but the band of muscle which passes down from the ureter, and which should interlace with its fellow of the opposite side before passing downwards (forming the prominences of mucous membrane known as the plica ureterica and the interureteric bar), in this case ran straight down to the crista gallinaginis of the prostatic urethra, which it appeared to join. The result of this was to give the base of the bladder a curious lopsided appearance which must be quite characteristic and could not be mistaken if seen by the cystoscope. Methods at our command for the detection of single kidneys are cystoscopy, segregation, or separation of the bladder into two halves by a special instrument which enables one to collect the urine from the two kidneys separately, and inspection of the two kidneys.

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Etiology of Tuberculosis.—Ravenel (Berliner klinische Wochenschrift) in a resume of the literature upon the infection with tuberculosis by ingestion of food and by contagion comes to the following conclusions: The alimentary canal is a frequent portal of entry of the tubercle bacillus, which is capable of penetrating the healthy mucous membrane of the canal without leaving any traces of such penetration. This occurrence takes place most easily during the digestion of fat. The bacilli reach the blood by the way of the chyle vessels and the thoracic duct; from the blood they find their way into the lungs, being retained there by the filtering property of lung tissue. Such infection by way of the alimentary canal is most frequent in children. The milk of tuberculous cows is often a source of infection, but the present

state of our knowledge does not enable us to state the proportion of cases in which this cause is active. Tuberculosis may also be spread by contact, such as takes place in kissing, in performing autopsies, and in cleaning various utensils used by tuberculous patients. Contact infection, however, plays a subordinate role in the spread of the disease.

Climacteric Hemorrhages Simulating Cancer.—Myer-Ruegg (Zentralblatt f. Gynak.) notes the extreme interest which women as well as gynecologists take in climacteric symptoms. Patients now think not only of the chances of temporary ill-health during the change of life but also of the risks of cancer. Atypical hemorrhages rightly alarm them, and are enough, even when scanty, to drive them to their doctors. It happens that the author has been consulted by no less than five women where the hemorrhages were essentially atypical, that is to say irregular and independent of menstrual molimen, and very suspicious in character; yet on careful examination it was found that there was no trace of incipient cancer of the cervix or of the body of the uterus. The irregular hemorrhages were caused by acquired cervical hematometra, the retained blood escaping from time to time, generally in the form of a brown discharge. The condition seems due to the atrophic narrowing of the os externum common at the menopause, whilst the uterine end of the cervix also undergoes some contraction. In the least marked cases of this cervical hematometra the canal appears fusiform on section. The writer noted that the os externum was difficult to distinguish, even with the aid of the speculum. In more than one case it was indicated by a minute fold of the mucosa at the top of the vagina; then a probe could be passed into a narrow opening. When the probe was pushed up further, it entered a cavity, and, when retracted, dark blood or old clot escaped in more or less abundance. The atypical hemorrhages ceased altogether after the canal of the cervix was carefully dilated. In none of the five cases was the cavity of the uterus itself enlarged. In one case the period returned and remained regular for a while, ceasing at length without any abnormal manifestations. Schick publishes a case quite opposite in character, where a woman, aged 58, had been quite regular until the age of 55, when the show ceased for three months. Since then irregular hemorrhages and dark-brown discharge had been noted. In October, 1906, the curette was used, but no evidence of malignant change could be made out in the scrapings. Yet by February, 1907, when Schick examined her, cancer of the body of the uterus was detected and metastases were found in the connective tissue of the vagina on the right, extending down to the perineum and anus in the form of well-defined tuberosities. Yet the cancer had originated in the glands of the endometrium, the situation of the metastatic deposits was, therefore, most unusual. The most interesting feature in this case, as compared with the author's, was the long continuance of atypical hemorrhage before malignant disease was established, whilst in the cases under the latter writer the bleedings continued for long, yet were from first to last due to morbid conditions which had nothing to do with any type of malignant disease of the uterus or cervix.

Death of the Fetus.—Lepage (La Clin.) reports the case of a woman who, having had two healthy children, developed during her third pregnancy albuminuria with constitutional disturbance, and gave birth to a dead fetus in the eighth month. Her previous pregnancies had been quite normal, and he suggests that the albuminuria may have been due to the bad hygienic conditions under which the patient lived. Another case reported aborted in the third month, the placenta showing that development had been arrested for some time. Should death occur during the first few weeks, the fetus will undergo dissolution: the embryo consists so largely of water that it dissolves in the amniotic fluid; if expulsion occurs a few days after death, some fetal remains may be found; but if some weeks later, the ovum will probably be quite clear. At the age of two to four months the fetus, should it succumb, is liable to mummification, the amniotic fluid is reabsorbed, and the fetus dries up. In the later months maceration may occur, accompanied by desquamation of the skin and discoloration of the liquor amnii; the final change is putrefaction, which can only occur when the dead fetus is in contact with the air, and which is a complication of labor not of pregnancy.

Dealing with the causation of the death of the fetus during pregnancy, the writer ascribes it to (1) an infection transmitted through the maternal blood stream; (2) an infection transmitted through the germ; (3) an alteration occurring in the circulation of the fetus. He notes as the most important cause, syphilis; as occasional causes, tuberculosis and chronic intoxications, such as alcohol, lead, or albuminuria. Uterine maladies are of great importance, endometritis or fibromata being responsible for many deaths. Fatalities are due also to fetal malformations, to errors of circulation, to knots and twists in the cord, amniotic bands, and abnormal placental insertions.

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Clinically, after the death of the embryo, the symptoms of pregnancy gradually disappear; diagnosis, however, is difficult. The expulsion of the dead fetus may occur soon or not till term. The practitioner is advised to adopt a waiting policy; having warned the parents, he should watch the patient, and await the natural expulsion of the ovum. A careful examination of the expelled fetus may indicate the cause of death, and be of assistance in determining treatment should the patient become pregnant again. In doubtful cases an antisyphilitic treatment is recommended.

Post-Operative Acetonuria.—Longo (Rif. Med.) has examined the urine in 103 cases with a view to the presence of acetone after operation. He believes that a physiological acetonuria exists, and in his 103 cases 7 per cent. showed acetonuria before operation, although in other respects they might be considered normal individuals. Acetonuria was much more often seen after ether narcosis (19 out of 20 cases) than after chloroform (51 out of 57), and in each case it was most marked the nearer the examination was made after the operation. In the 7 cases operated upon under local anesthesia (cocaine) acetonuria followed the operation in every case. In 15 cases of traumatism or operation without anesthesia acetonuria was noticed in 7, and in 3 cases of simple chloroform narcosis without operation acetonuria followed every time. The test for acetone used by the author was that described by Lieben. Apparently post-operative acetonuria is an almost constant phenomenon, but temporary; the low diet after an operation seems to prolong it a little, but it does not appear to be due to fasting, although this condition and early years act as predisposing causes. The essential elements in post-operative acetonuria are the narcosis and the trauma. In the author's experience the post-operative course is not influenced by the presence of acetonuria, which he holds is due to a functional alteration of the central nervous system.

Diagnosis of Congenital Dislocation of the Hip.—Privat (Journ. des Prat.) gives briefly the signs by which one may suspect congenital dislocation of the hip in a child, and finally describes the methods which should be employed to verify the diagnosis and to estimate the prospects of success by suitable treatment. When the dislocation is a double one, the walk of the patient is almost pathognomonic of the condition. The child limps, but there is no associated painful limping; the step is free and normal, and the foot is carried resolutely forward. In a double dislocation the height of the body at each side is inclined abruptly to the side of the leg which rests on the ground;

it seems as if the support on which the patient proposes to rest is suddenly drawn away, so that the trunk sinks; the gait, therefore, resembles very closely the "waddle" of a duck. When unilateral, this limping character is similar but one-sided. A marked lumbar lordosis is present; the waist appears shortened, and the pelvis seems enlarged from the projection of the trochanters.

To verify the diagnosis of a congenital dislocation of the hip one must demonstrate the absence of the femoral head from the acetabulum; to do this one may either employ the x-rays or demonstrate the condition clinically and in the following way: With the child lying flat on its back, one grasps the lower end of the femur with the right hand and imparts to the limb movements of flexion and extension and rotation; with the other hand one seizes the upper extremity of the femur, and recognizes in turn the outermost projection (the great trochanter), and internal to this the femoral neck, and still more internal the femoral head. If there be no dislocation, the head of the femur will be felt with difficulty, and on hyyer-extending and externally rotating the thigh a prominence (the head of the bone) will be seen in Scarpa's triangle. If a dislocation be present the head of the femur can be plainly felt, and at the place where the head of the bone should normally be, one finds an emptiness. This demonstration of a mobile femoral head outside its normal position, together with the absence of previous symptoms of disease or injury, is sufficient to differentiate the condition from traumatic dislocation or hip disease.

The head of the femur in congenital hip dislocation may be either below the level of the anterior superior spine of the ilium, on its level, or well above it; in the first case reduction will be easily effected, in the second with more difficulty, and in the last with still greater difficulty. Further, reduction is easier when the head of the femur is in front of the acetabular cavity than when it is behind it. In a few cases the femoral head is situated above the normal position, but is not freely movable; in these cases the head of the bone has formed a new acetabulum for itself; these cases differ from the ordinary forms of congenital dislocation in the fact that walking causes pain; reduction also is difficult in these cases.

Fractures of the Long Bones.—Thompson (Lancet) in the first of his Hunterian lectures, discusses fractures of the neck of the thigh bone, dealing especially with the anatomy of the bone itself. In the ends of the bones of an ordinary adult man there are developed definite lamellæ running in the main direction along which pressure is trancmitted. Certain other lamellæ are also developed, gradually crossing these pressure lamellæ at right angles. These are known as tension lamellæ. Their presence generally increases the elasticity and therefore the strength of the bone. In the young person, as well as in the old, these pressure lamellæ are not well seen, nor are the tension lamellæ. In the young person the cancellous tissue at the ends of the long bones is so dense and the meshes are so fine that the pressure and tension lamellæ can hardly be demonstrated. In the old person the bone fibres are so obscured by the presence of fat that they are very difficult to discover. Relatively large masses of fat develop in the part of the bone which is least subject to pressure. Fractures of the neck of the thigh bone have perfectly definite causes, the statement of which depends to a large extent upon the knowledge of the internal structure of the upper end of the femur. Now, in addition to the two series of lamellæ, there is a third series, which pass from the upper surface of the head to the lower surface of the neck, and thus to the compact layer on the inner surface of the shaft of the femur. This layer or spur of bone is known as the calcar femorale, or Merkel's or Adam's arc, is a nearly vertical ledge of compact bone. It does not always disappear in old age, but, on the other hand, it is not invariably present, even in young people. The calcar in extracapsular fracture of the neck of the femur is responsible for the edge and lower end of the clusel, whose other parts are represented by the head and neck of the femur. The calcar certainly produces the vertical secondary fracture of the great trochanter and upper part of the shaft of the femur, and may be held partially responsible for the horizontal secondary fracture near the base of the great trochanter. In intracapsular fracture of the neck of the femur the pressure starts from the front of the upper part of the neck. If the patient is in the flexed position when the accident happens, the ligamentum teres is not strong enough to resist the sudden force which is put upon it, and so it may be either stretched or ruptured. The anterior surface of the neck of the femur then comes into forcible contact with the corresponding part of the acetabulum, and the fracture is begin. The line of fracture then passes for some distance in a transverse direction along the neck until it meets with the lamellæ coming down from the anterior upper surface of the head of the femur to the posterior and under surface of the neck of the same bone, and is

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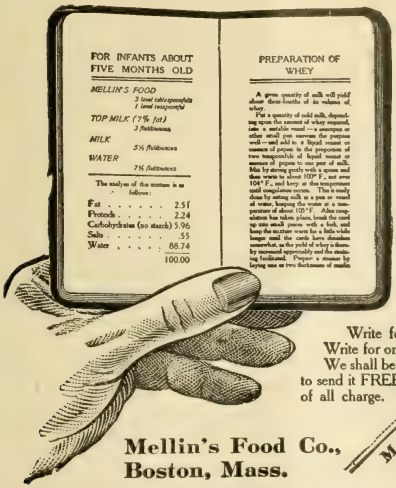

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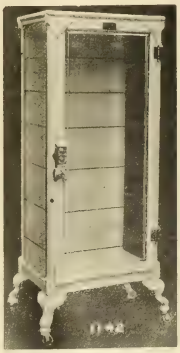

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by them deflected so as to form either a posterior or an inferior tongue of bone.

Pneumococcic Peritonitis.—Cuff (Brit. Med. Jour.) states that it has been established beyond all doubt that cases of peritonitis occur in which most careful search, both ante and post mortem, fails to show any primary lesion in any abdominal viscus. The cause of many such cases is the pneumococcus. Pneumococcic peritonitis is at all times uncommon. It is most often met with in children, being extremely rare in adults. It may be diffuse or localized in the form of an intraperitoneal abscess. Onset is sudden with severe pain, the previous health having usually been good. The course of the disease is very rapid: free fluid in the abdominal cavity is an early sign. The pus is peculiar in that it always contains a large quantity of coagulated lymph like curdled milk. The writer reports a series of five cases from which he draws the following conclusions: 1. That an acute diffuse or localized peritonitis may be the sole symptom of a pneumococcic infection. 2. Such cases possibly form a considerable proportion of those anomalous cases of peritonitis without visible lesions of any of the abdominal viscera. 3. Their sudden onset after previous freedom from abdominal trouble, together with the frequent accompaniment of diarrhœa, and signs of early systemic poisoning, may perhaps serve to assist in differentiating them from peritonitis caused by other infection. 4. They may be followed by pneumococcic lesions in other organs of the body. 5. Their prognosis is extremely grave.

The Treatment of Forms of Puerperal Fever.—Fuller (The Transvaal Med. Jour.) says the death rate from puerperal fever is shown from statistics to be the same in Great Britain and the chief towns of Cape Colony for the past ten years; in spite of the fact that the mortality rate of institutions from the same cause has been practically reduced to nothing. Therefore, while it is true that puerperal fever is a preventable disease, it is of frequent occurrence and is actually not prevented. As the author remarks: "If ignorant midwives were allowed to take part in abdominal operations, it is quite evident that the peritonitic mortality after this operation would become great."

Septic absorption may be of two kinds: (*a*) sapremia, in which toxic products from germs enter the blood stream; (*b*) septicemia, in which the germs themselves gain almost immediate access to the blood-stream and multiply there. Puerperal fever is therefore simply wound infection. The normal secretions have bactericidal qualities, and ordinarily douching will therefore lower the power of resistance of the parts.

Prevention is the first essential of treatment. When the doctor or midwife has interferred—especially when the "surgical conscience" is lacking—danger from puerperal fever exists. In sapremia there is pyrexia with plenty of milk and lochia—the latter offensive. In septicemia there is pyrexia with scanty milk and lochia—the latter not offensive. Give calomel, remove stitches, touch ulcers with pure carbolic acid, cleanse vagina with 1-4000 perchlorid solution, and with sterile swab obtain secretion from the uterine interior for microscopic examination. Then give uterine douche and later vaginal douches. If no relief after 12 hours explore the uterine interior and remove retained products if present. A polyvalent antistreptococcic serum may be injected. Other forms of treatment may be required in exceptional instances. These include curettage, hysterectomy, vaginal incision, ligation of the internal iliac and ovarian veins, and the injection of the best polyvalent antistreptococcic serum available.

Paresis of the Brachial Plexus after Operations on the Pelvis.

Horst (Zent. f. Gyn.) states that paresis of the muscles supplied by the brachial plexus is not uncommon after pelvic operations owing to pressure of the arms on the edge of the operating table and on portions of the body. In some of these cases the disability remains for a long time and necessitates a long course of treatment. It occurs especially in operations that necessitate a long period of narcosis. The radial nerve is pressed upon by the upper arm lying across the edge of the table. Forced hyperextension combined with abduction of both arms may affect the entire brachial plexus. This pressure may be made by the head of the humerus in the axilla, or by the scapula, or by the clavicle upon the ribs. These cases occurred at the University Clinic in Berlin in spite of great care in the anaesthesia. The author has constructed a shoulder rest furnished with inflated rubber cushions over the rest, and since the use of this apparatus there have been no more arm paralyses.

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Primary Carcinoma of the Appendix.

F. Kudo describes eight cases of this form of neoplasm, which mostly were accidental findings in appendices removed at operation. Cancer of the appendix occurs in three types: as simple carcinoma, with scirrhus form of the connective tissue; as adenocarcinoma; and as adenocarcinoma with marked formation of mucus. The last appears to occur especially in older subjects. But it is striking that in general the disease more often affects young individuals; thus Kudo mentions one case in an eight-year-old child, and the collection of cases reported in the literature supports this observation. The tip of the appendix is the favorite seat of the tumor, and it rarely is found in the middle or the base. The growths are mostly very small, and may easily escape detection, as in a case of the author's in which there was diffuse carcinomatous infiltration of an obliterated appendix without any thickening. In many cases only the mucosa and submucosa are attacked, rarely are the serosa and muscularis involved. These tumors almost never metastasize; their slow growth and benign character depends perhaps on the structure of the appendix, whose narrow lumen and powerful muscle-wall appear to hinder the rapid spread of carcinoma. The relation between appendix-carcinoma and appendicitis is questionable; probably the carcinoma is the exciting cause of the inflammation-from its stenosing effect.—Zeitschr. f. Krebsfors, chung.

The Resuscitation of the Apparently Drowned.

The London Hospital Gazette for November contains a report of a demonstration of Professor Schafer's method of resuscitating the apparently drowned given by Mr. W. M. Fletcher, Fellow and Tutor of Trinity College, Cambridge, at the London Hospital, before a mixed audience, among which were several members of the Royal Life Saving Society. Mr. Fletcher was introduced by Mr. Sydney Holland, who said he was present when the regrettable "grind" accident occurred at Cambridge, and used the Silvester method upon a woman with some success; but she eventually died with symptoms of a ruptured liver. In conversations afterward with Mr. Fletcher he learned of the Schafer method, and subsequently invited him down to the "London," to give a demonstration of the new method.

After a brief description of the mechanism of respiration, Mr. Fletcher sketched the history of the various methods of artificial respiration. Marshall Hall, early in the last century, advocated pressure on the thorax from behind, together with rolling on the side, a method which was adopted throughout the civilized world. In 1850 Silvester drew attention to the importance of initiating inspiration. His method was to draw up the arms and press them into the chest wall, the patient lying on his back. The Royal Medical and Chirurgical Society appointed a committee, which received the Silvester method with favor, and it was adopted by the Royal Life Saving Society and other societies. Another method, the Howard, was to apply rhythmical pressure to the lower part of the chest, the patient lying in the dorsal position.

In 1889 the Royal Medical and Chirurgical Society appointed a second committee, which, after fourteen years' work, produced the report of 1903. The chief interest of the report was the record of experiments made by Schafer. In these he drowned some thirty dogs, which were fully anesthetized before they were drowned. From these experiments he proved that (1) the presence of water in the lungs was not serious, since it was rapidly absorbed, but its presence in the windpipe was serious. (2) During suffocation the organs of the body were enormously engorged with blood, the liver in particular, which consequently was exceedingly tender and friable, and liable to rupture. Though he performed artificial respiration with great care upon the dogs, several livers were ruptured. (3) The introduction of water into the windpipe has the action of increasing the secretion of mucus. The committee tried all the methods upon a living patient, and measured the amount of air expelled by each method. The report showed that all the methods were adequate, but went no further. As an afterthought Professor Schafer saw that they were on the wrong tack, and showed that what was wanted was a number of repeated efficient breaths and not one big one—a hurdle race as compared to a high jump. Instead of taking one sample of each method, Schafer carried out each for five minutes, thirteen times to the minute. The result was as follows:

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(Prone pressure.)

(The average tidal air of a middle-sized man is 300 to 350 Cc.)

Schafer pointed out that his own method is the same as Marshall Hall's without the rolling, which he thinks waste of time. He placed the patient in the prone position, with a rolled-up coat under his chest. Kneeling beside the drowning man, the operator placed his hands on the lumbar region, one on each side of the vertebral column and over the last two ribs, the fingers pointing upward and outward. Rhythmical pressure of the whole weight of the body was then levied upon the patient fifteen times to the minute. The advantages of the Schafer method are: (1) The prone position, enabling the tongue to hang downward and forward; (2) the first movement, being one of expiration, helps water out of the windpipe; (3) the simplicity of it —a weak man can do it unaided for hours, and can give instructions to assistants meanwhile; (4) the small danger of rupturing the liver. The disadvantages of the Silvester are: (1) That it is elaborate and impossible for one man to carry out alone —the printed instructions show four men; (2) several minor points had to be attended to before artificial respiration was commenced. Is there seriously anything to be said in defense of the method other than that it is theatrical and useful for competitions? The Schafer method is not yet universally known, but it has been used to the lecturer's knowledge already two or three times without success—once by a pupil of Professor Schafer in Edinbnrgh upon a victim of a skating accident, and in iwo recent cases near Cambridge.—British Medical Journal.

Hot Gelatin Enemata in Intestinal Hemorrhage.

Michaelis, in a series of cases of intestinal hemorrhage, mostly typhoid, made use of 5 per cent. (in two cases 20 per cent.) gelatin clysmata at a temperature of about 120 deg., in amounts of 250-500 c.c. 2 to 4 times daily. In all the cases the hemorrhage ceased entirely. The fear that the mucous membrane might be burned by the hot gelatine was shown to be unfounded by the autopsy on one case which died from other causes. The typhoid ulcers in the case showed no unusual appearances,

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LIBERAL SAMPLE TO PHYSICIANS AND NURSES.

uor was any injury to the kidneys to be observed. —Med. Klinik.

Etiology of Cyclic Albuminuria.

Jehle reports on 7 cases of cyclic albuminuria in children between 8 and 16 years. Amount and specific gravity of urine were normal; the albuminous bodies precipitated by acetic acid were always demonstrable, alone or accompanied by ordinary albumin. The amount of albumin was occasionally quite high. The author was unable to observe any striking variations in blood pressure, or any special influence on it of different positions of the body. He thinks that he has observed an etiologic factor in the occurrence of the albuminuria in an altered position of the spinal column. The urine was always free from albumin when the children were in a position which avoided a lordotic position. All the children observed had more than the normal lordosis, the greatest curvature being at the 1st and 2nd instead of the 3rd and 4th lumbar vertebrae. How the lordosis causes albuminuria is not certain —probably either through a direct action on the vessels, or indirectly through a pull on the (possibly too short) ureters, causing twisting of the kidney and stasis. According to these observations, therapy should consist not in milk diet, but in hearty nourishment and exercise. The standing position can be made harmless by proper support. —Munch. Med. Wochenschrift.

Contributions to Killian's Radical Operation for Chronic Frontal Sinus Empyema.

Mader takes up the end results after a period ranging from 6 months to 3 years, of 14 cases of chronic frontal sinus empyema, operated according to Killian's method. The headache was either entirely and permanently cured, or at least markedly relieved, to reappear only during bad weather. Often the pain persisted during the convalescence, to disappear after healing had taken place. Less satisfactory results are obtained as regards the

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secretion. In the best cases, it was very slight, but many times there was observed only a transformation of the purulent into a mucous or muco-purulent secretion of lessened amount. Total obliteration of the cavity never took place, only a partial. The cavity was filled with a kind of scar tissue, capable to a certain extent of secretion. The cosmetic result was without doubt the point par excellence of this method. As a rule it was excellent, although exceptions were noted, when the sinus presented exceedingly large recesses upward and outward. The general condition of the patient improved in every case, occasionally strikingly so. The symptoms on the part of the nervous system were always influenced for the better. Many recovered entirely. The most unfavorable cases in this regard were those of marked neurasthenia. Nose and throat conditions improved with the diminished secretions. Every patient was able after the operation to resume his or her work, mental or physical as the case might be. The author considers that no other method, all points considered, offers such good uniform results, and he does not hesitate to designate it as the most useful and most worthy of recommendation of all methods thus far described.—Archiv. fur Laryngologie.

Eczema.

Fellows claims that the following will give immediate relief and cure all forms of eczema:

℞ Lac. sulphur, ℥ ij.
Zinc oxide, ℥ j.
Ichthyol, ʒ ss.
Menthol, gr. xxx.
Vaselin, ℥ iv.

M. Sig. Thoroughly rub in each night after washing with sulphur soap or some germicidal soap.

Nutrition as Affecting Inflammations of the Mucous Membrane.

Great strides have been made in the practical management of most diseases during the last few years, but it must be admitted, in some respects, mortuary statistics are not very encouraging. Among those diseases which do not seem to respond favorably to recent therapeutic innovations, pneumonia, bronchitis, influenza, gonorrhea, gleet, cystitis, are notable examples. It is not only possible, but very probable, that treatment is too often addressed to the local disease without due reference to the general condition of the patient. In nearly all of the above inflammatory conditions the morbid processes seem to be localized, but they are not. The local concentration is probably the result of a toxaemia which is a constitutional one and not infrequently affects one or several important organs of the body. If these organs which are so affected, are not properly cared for, their co-operation in the elimination or neutralization of toxines and restoration of organs prsmarily involved, will be lacking. Treatment in this class of cases must not only be local but constitutional; for instance, it will not do to depend upon a sedative to relieve a cough, nor will any agent which relieves the urgent symptoms of a bronchitis or pneumonia, cure the disease. In pneumonia a large percentage of the fatal cases are the result of toxaemia and mechanical embarrassment of the circulation. There is, first, a congestion of blood stasis in a portion of the lungs. If the cause is not promptly removed, the blood, which should pass freely from the right ventricle to the lungs and thence back to the left side of the heart, is gradually forced back on the right side, with resulting dilitation, hypertrophy, valvular disease and general derangement of the circulation. At this stage of the condition, the congestion of the lungs should be relieved by lowering blood pressure without impairing the integrity of the heart and by diverting the blood to other parts of the body and keeping its quality to a normal standard. This same line of treatment applies also to the congestion and inflammatory stages of all the other mucous membranes. To combat the constitutional indications in this class of diseases, it is of the greatest importance to supply to the system a full and complete nutrition which assures normal heart action as well as normal anabolism and catabolism. The local lesions much more rapidly subside under local treatment where the general nutrition of the patient is kept up, than where it is neglected. Resolution of all inflammations from all causes much more rapidly occurs where the constitutional condition is taken care of. How best to obtain this has always been a matter of much concern to the profession, and as a result of clinical study many forms of tonics and modes of feeding have been employed, each of value but some more so than others. It has been demonstrated conclusively by a large clinical experimentation that Bovinine as a food and tonic in this class of cases gives a most happy result.

How to Live.

The secret of health and long life lies in the observance of simple things:

1. Don't worry.
2. Don't hurry. Too swift arrives as tardy as too slow.
3. Simplify everything you do.
4. Don't overeat; don't starve. "Let your moderation be known to all men."
5. Court the fresh air day and night.
6. Sleep and rest abundantly. Sleep is nature's sweet restorer.
7. Spend less nervous energy each day than you make.
8. Be cheerful. "A light heart lives long."
9. Work like a man should, but don't be worked to death.
10. Avoid passion and too great excitement. A moment's anger may be fatal.
11. Associate with morally and physically healthy people. Health as well as disease is contagious.
12. Don't carry the world on your shoulders, much less the universe. Trust that to the Eternal, for "*He* doeth all things well."
13. Never despair, for lost hope presages moral and physical death.--Dietetic and Hygienic Gazette.

Diagnosis of Acute Miliary Tuberculosis.

Ceconi says that in acute miliary tuberculosis it is almost impossible to aid diagnosis by demonstrating the presence of the bacilli in the blood. Serodiagnosis and culture experiments also fail to aid us. But there are several symptoms that are of diagnostic value in these cases. They are dyspnea, polipnea, paroxysmal cough, and cyanosis, combined with frequency of the pulse. In abdominal typhoid, we should have digestive symptoms, swelling of the spleen, and the peculiar course of the fever to differentiate the disease. The pulse in tuberculosis will be small and very soft, while lacking dicrotism. The arterial pressure is diminished, and the rapidity of the pulse is out of proportion to the rise of temperature.—Il Policlinico.

The Treatment of Itching Piles.

The following ointments will prove efficacious in relieving the itching:

Cocaine hydrochl - - -	gr. 8
Menthol - - - -	gr. 10
Petrolatum - - -	oz. 1

Apply externally and push up a small quantity into the rectum, after bathing the parts with cold water.

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On Black Urine.

Garrod gives a brief account of the importance which has been attached to this phenomenon from ancient times, citing cases in which the condition existed in healthy persons. He then gives a list of diseases which may produce black or dark urine. The first disease discussed is jaundice. It is not common for urines containing bile pigment to approach to blackness, but when there is a large amount of biliverdin, together with bilirubin and other varieties of bile pigment, they may appear black. Black urines of this kind are more common in cases of long-standing jaundice in which the skin has become a dirty greenish hue. The writer thinks that it is probable that many of the black urines described in the earlier literature owed their blackness to the admixture of blood or of hæmoglobin. The term "black water fever," the writer states, bears witness to the character of the urine which may result from the presence of hæmoglobin. In cases of poisoning by certain drugs the urine may appear opaque and practically black. In hæmatoporphyrinuria the color of the urine usually resembles that of port wine, but various degrees of tint are met with. True melanuria associated with melanotic sarcoma is a rare condition. In melanuria the urine has usually a normal color when passed, although it may have a brown tint, but after being exposed to air it quickly becomes brown, and finally as black as ink. In alkaptonuria as in melanuria the urine is of normal color when fresh but darkens on standing. In the condition of ochronosis—a term given to a blackening of the cartilages and of some other tissues—the urine has been observed in a few cases to blacken on standing.

Any morbid process which leads to abundant excretion of indican may give rise to dark urine—in-

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testinal obstruction from any cause, excessive bacterial activity in the intestine, or putrefactive changes in collections of pus. Indicanuria is not nearly so well recognized as it should be. It has been noted in some cases of phthisis that urine became black on long keeping. The writer mentions several instances of uncertain nature in which the urine has been discolored. He also gives a list of articles of diet and drugs which have the same effect. As to prognosis, it may be grave, as in the case of true melanuria; or as in alkaptonuria the condition may be harmless. Between these extremes of morbid conditions are various degrees of gravity.—The Practitioner.

A Valuable Aid in the Reduction of Hernias.

Sehrwald, after thorough examination of the hernia, says the patient is directed to breathe deeply and hold the breath a moment at the end of each inspiration. At the end of five minutes an effort to reduce the hernia should be made while the patient continues the deep breathing, and usually the reduction is made with astonishing ease. In only one instance did Sehrwald fail by this method, and subsequent operation showed that the intestine was gangrenous. He believes that his results show that in the earlier stages of invagination the closure of the veins and lymph channels is not complete, and the increased pump action of the lungs on the circulation restores the venous and lymph flow in the hernia sac, allowing blood, lymph and gases to escape, thus greatly facilitating the reduction of the hernia.---Therapeutische Menatshefte.

A New Test for Tuberculous Pus.

('Centralbl. f. inn. Med.,' No. 12, 1907). Muller describes a new test. Hitherto the only means of distinguishing microscopically between tuberculous and non-tuberculous pus has been by the Muller-Jochmann method, in which a minute drop of pus is placed on some sterile coagulated blood serum and the whole is incubated. With tuberculous pus no change takes place, but if the pus is the result of ordinary pyogenic bacteria a small cup-shaped depression is formed in the culture medium. Muller's new test is simpler. A drop of pus is allowed to fall into a glass containing Millon's reagent (a solution of mercury and nitric acid). Non-tuberculous pus forms a small lump which soon disintegrates and turns the liquid a bright red color; tuberculous pus, on the other hand, forms a pellicle on the surface of the fluid, which, if submerged, becomes globular in shape, does not disintegrate and does not color the liquid. The explanation of the two tests is the same. Ordinary pus contains a proteolytic ferment, while tuberculous pus does not. This ferment in the first test digests the blood serum and so forms a depression; in the second it acts on the proteids contained in the pus with the formation of albumoses, which diffuse into the re-agent and give rise to the characteristic red color. Tuberculous pus contains chiefly albuminous bodies, which form a firm coagulum with Millon's re-agent.---The British Journal of Child. Diseases.

Negri's Bobies in Rabies.

D'Amato examined 35 animals with rabies with reference to the presence of Negri's bodies. He found these structures to be constantly present in these cases. In one dog inoculated experimentally with rabies he found a few Negri's bodies in the cornu Ammonis, in the brain, and in the cerebellum. The number and the size of Negri's bodies does not seem to be in relation with the severity of the disease. In most cases Negri's bodies were found to be intracellular, but in some cases they were found outside of the cells. These bodies stain with most methods, taking the acid stains or dyes. It is impossible to determine positively as yet whether they contain a nuclear substance. Negri's bodies are found in large numbers in the spinal ganglia and in the Gasserian ganglion, especially in rabbits, but, as a rule, they are very small. In addition to Negri's bodies the ganglion cells contain other structures of irregular shapes which also stain with acid dyes. These cells also contain small bodies which may be regarded as red blood cells that have penetrated into the ganglion cells. With iodine solutions Negri's bodies stain a yellow color and assume the same tint as the red blood cells. With potassium ferrocyanide, hydrochloric acid, and alcohol these bodies assume a bluish yellow color identical with that taken by the nuclei of nerve cells.--Riforma Medica.

Yefimov's Test in the Urine for Worms.

Carletti and Dozzi say that Yefimov's chemical and microscopical tests for the presence of worms is of no value. The chemical test which was suggested by the Russian author mentioned was as follows: From 5 to 10 cc. of recently voided urine were treated with five or ten drops of a solution of mercuric nitrate. A precipitate formed. If the latter was white, milky, the patient did not have any worms. If, however, the precipitate was greyish or more or less dirty, almost black, then the patient had intestinal worms. In order to avoid possible causes of error, the author advises that the patient should not take any medicine for several days before the test, because alkalis, sulphates, and compounds of lead, iron, etc., produce a greyish color in the precipitate. Albumin, glucose, indican, etc., do not modify the reaction. Pus, on the other hand, will cause it to color the precipitate a dark tint. The second reaction recommended by Yefimov is more important than the first, and not only indicates the presence of worms, but even shows what variety of worms is present. It consists in the microscopical examination of the crystals, which are obtained by evaporating a drop of the urine on a slide. Granular crystals indicate the presence of cestodes, while crystals in the shape of crosses show the presence of nematodes, or round worms. The simplicity of this test led the authors to experiment with it. They examined in a number of patients, some of whom were tuberculous, while others suffered from a variety of diseases, both the fæces and the urine. The fæces were examined in order to find out whether the eggs of parasites were present; the urine whether Yefimov's test could be obtained. The conclusions which the authors make as the result of the examination of eighty patients are: (1) The chemical reaction with the acid nitrate of mercury does not usually present the marked characteristics described by Yefimov. The color of the precipitate varies greatly without reference to the presence of worms. In two cases, in which the fæces did not show the presence of intestinal worms, there was a distinctly dark precipitate. On the other hand, the precipitate was white in three cases in which the fæces showed the presence of worms. (2) The presence of crystals in the urine of these patients did not correspond to the presence of worms. The shape of the crystals varied greatly in the same case at different times. In ten patients, who showed no eggs of parasites in the fæces, only three showed crystals in the urine.—Gazetta Degli Ospedali e Delle Cliniche.

The Periodical Nervous Headache.

Among the most common ailments, especially among the young, are the periodical nervous head-

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aches, and three or four times as many females as males are afflicted with them. Dr. A. F. Schellschmidt, of Louisville, Ky., states that "they generally manifest themselves about the time of puberty and are very severe for a few years, but with increasing age the attacks become less frequent, until at the age of forty they seem to almost disappear and are seldom or never seen after fifty. They are associated with vertigo, nausea and vomiting. The pain is in and around the eyes and while the attack lasts there frequently is partial or total blindness. Those who complain of this trouble suffer from prodromal symptoms for several days before the attack shows itself in an active form, which symptoms differ in different patients.

When treatment is demanded it is more for the pain than anything else. Opium will relieve but does more harm than good, as it leaves the system in a worse condition to resist a subsequent attack. Antikamnia tablets give great relief and act quickly. An emetic will sometimes abort an attack. The bowels should be kept open and those diuretics which hasten the elimination of the urea should be administered. If the attacks are due to a reflex nervous condition the cause must be sought and treated.

The adult dose of antikamnia tablets best suited for the relief of these headaches, is two every three or four hours."

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Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of "just as good" than the scientifically standardized Eucalyptol.

The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proved injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated and finally the medical reports commending on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit.

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The absolute purity of the product of Fries Bros. is guaranteed by their NEW glass automatic tubes, and can be used with implicit confidence.

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Complete Anæsthesia in thirty seconds.

Reed & Carnrick, the well known manufacturers of many valuable preparations, have prepared for physicians an attractive booklet containing sketche of prominent medical men of the early days and of their homes of institutions with which they had to do, and of events which have been epoch marking in the history of American medicine. These sketches are largely descriptive of a set of handsome pictures of homes of prominent doctors, hospitals and medical schools which are artist proofs on Japan Vellum. Any of these pictures will ornament the office or den or library. They are not for sale, but any one of them may be procured by any physician who will send to Reed & Carnrick his experience, whether successful or not, with Peptenzyme, one of their most valuable and useful products. Or they will furnish the entire set to Medical Libraries, Schools, Society Rooms, Hospitals and Sanitariums provided ten doctors so request.

Peptenzyme is so widely used and its use is followed by such uniformly excellent results that any doctor can readily recommend it.

New York, April 28th, 1908.

To the Eisner-Mendelson Co.,

Dear Sirs:

On April 16th and 17th I asked at a number of drug stores in the city for Carlsbad Salt and obtained five different imitations, which I have marked from No. 1 to 5, and examined same in comparison with the genuine Salt, as received from you.

The genuine Salt, as will be seen from the analyses, and which I have marked "O", is characterized by the high percentage of the following constituents: Sulphate of Potash, Sulphate of Soda, Chloride of Sodium and Bicarbonate of Soda. From the analyses of the samples bought by me, it is easily seen that none comes near the genuine Salt in composition. While one sample is practically Glaubersalt to which some bicarbonate of Soda and Salt has been added and may be called a home-made article, the others have been evidently manufactured by smelting Glaubersalt with the addition of the same ingredients. During this process much water is evaporated and considerable Sulphate of Soda free from water formed. Samples 4 and 5 did not contain any Bicarbonate of Soda, owing perhaps to the fact that the bicarbonate added was not even sufficient to neutralize the free acid in the Glaubersalt.

Respectfully submitted,

(Signed) H. ENDEMANN, Ph. D

	Potassium Sulphate	Sodium Sulphate	Glauber-salt	Free Acid	Chloride of Sodium	Bicarbonate of Sodium
o	8.225	35.180	.....	.....	18.288	38.367
1	None	1.058	96.287	.....	0.444	0.211
2	2.332	69.958	31.155	.....	0.355	0.190
3	1.973	84.604	12.711	.....	0.461	0.211
4	1.880	84.400	12.901	0.061	0.361	None
5	2.194	85.238	11.455	0.030	0.352	None

Renal Decapsulation in Puerperal Eclampsia.—Falgowski (Zentbl. f. Geb. u. Gyn.) says that renal decapsulation, first employed by Edebohls and warmly advocated by Sippel, is gradually finding more adherents in Germany in cases of eclampsia. Aside from pure puerperal convulsions, *i.e.*, eclampsia occurring in childbed, the procedure is indicated also in eclampsia during gravidity and sub partu, in case artificial emptying of the uterus is not at once followed by improvement. The author reports a case of pure puerperal

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(Inflammation's Antidote)

THE resisting power of the body against disease is relative to the opsonic value of the blood and the severity of a localized disease process depends largely upon the retardation of the flow of the blood to that part.

The phagocytes may gather, but unless they receive the full amount of the normal flow with its opsonins, resisting power is lost and suppuration takes place. We must either increase the opsonic index of the blood so that the small amount flowing through the infected part may be of normal opsonic value, or, what is simpler and as effective, dilate the blood-vessels and let the blood, with nature's own method of combating disease, circulate through the area desired.

Heat dilates the blood-vessels, but to be effective it must extend to the periphery of the infected area, when it will not cause suppuration by increasing the bacteria. An antiseptic poultice is the best method of conveying heat. There is but one method of poulticing which commends itself to thinking physicians, and that is with the antiseptic, hygroscopic, plastic dressing—

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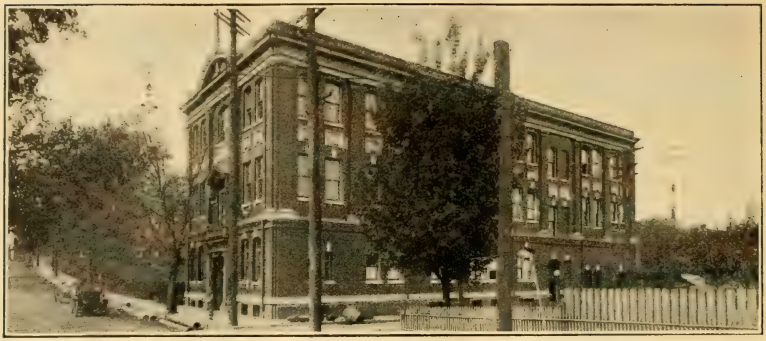

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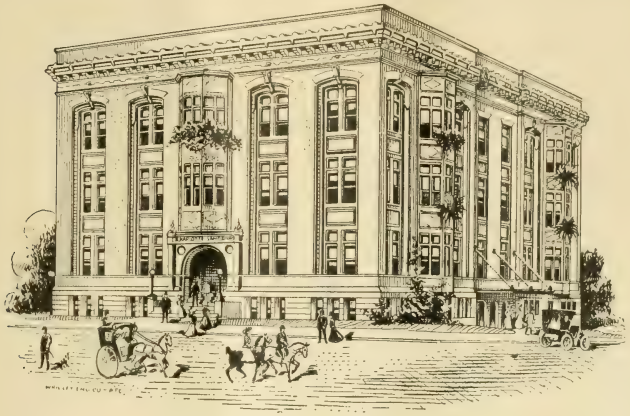

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A IV-para, 28 years of age, was suddenly seized 13 hours after normal labor with quite violent and rapidly recurring, typical eclamptic convulsions, accompanied by all the well-known symptoms. Uninterrupted coma in the intervals; finally, cardiac failure and pulmonary edema. Immediately with the onset of the affection there was very severe hemorrhagic nephritis with $12\frac{0}{00}$ albumin, and threatening oliguria. After about 30 severe paroxysms and 21 hours' uninterrupted coma, other therapeutic measures failing, bilateral renal decapsulation was performed. Both kidneys were found to be distinctly venous hyperemic and swollen (renal glaucoma). The capsule was stripped off on both sides and pushed towards the hilus.

After the operation the paroxysms immediately ceased; the coma disappeared after six and a half hours. On the succeeding days abundant urine was voided spontaneously, and on the fourth day the albumin content fell to $2\frac{0}{00}$. Respiration and pulse soon became normal, and on the 20th day the patient was "as good as cured."

The rapid subsidence of the acute nephritis was remarkable. Apparently the kidneys at the time of operation were severely inflamed and insufficient, but the epithelial apparatus had not yet been destroyed. In the latter case the operation would have been useless. It is important also to operate at the right moment. If arrest of urinary secretion, cardiac weakness and pulmonary edema also are present, there should not be a moment's delay.

The favorable effects of decapsulation are explained by overcoming of the excessive intracapsular pressure under which the kidney suffers in the course of the affection and which is so injurious to the epithelium. This excessive pressure inhibits the circulation of the blood as well as the exchange of materials, and resembles in cause and effect a continued venous stasis. Operative relief of pressure is followed by arterial hyperemia, which acts by absorption of any accumulated inflammatory materials.

The technic of the operation is simple and can be carried out in any house.

The Operative Treatment of Traumatic Meningitis.—Schlesinger (Berl. klin. Woch.) mentions the case of a man 57 years of age, suffering from a closed meningeal phlegmon, which had originated as the result of injury. A comminuted fracture, found at the time of the first operation, was treated by extraction of a sequestrum, and removal of the infiltrated bone of the vicinity. Another trephining operation was performed for the reason that the dura failed to present pulsation, and that the condition became aggravated after lumbar puncture, which yielded a serous fluid under a high pressure. Convulsions appeared, and the presence of brain abscess or meningitis was suspected. The second operation served to show that the purulent osteomyelitis had progressed further, and the bone had to be removed in its entire circumference. A clear fluid was obtained by puncture of the dura, but the patient's somnolence increased, and a third operation became necessary. The arm centre was exposed, and a meningeal phlegmon of the size of the palm appeared (pus between dura and arachnoid, with solid purulent infiltration of the soft cerebral meninges). It is a noteworthy fact that hernia cerebri failed to occur, recovery ensuing after the further removal of infiltrated portions of bone. The entire defect (17x14 cm.) was closed, except an area the size of a silver dollar, by means of plastics from the skull.

As the best operative procedure, the author recommends the wide exposure of the affected region; this serves to prevent hernia cerebri, which is sure to occur in small openings. Short tamponing is entirely sufficient under normal conditions of the wound. Flushing of the subdural space is rejected by the author. The reported case is the third case of solid purulent infiltration of the soft meninges, healed by operation. Since the lumbar puncture caused an aggravation of the symptoms, the author recommends, in suspected meningitic cases, that only enough cerebro-spinal fluid be withdrawn for the confirmation of the diagnosis.

Intestinal Arteriosclerosis.—Cheinisse (Semaine Med. Paris) reviews the scanty literature on arteriosclerotic changes in the intestinal vessels and the symptoms which they produce. Abdominal pain, in persons past 40, occurring in paroxysms, generally after physical exertion or emotional stress, should suggest intestinal arteriosclerosis, especially if the pain comes on when reclining. The mechanism of the disturbance is similar to that of intermittent limping—the ischemia of the intestinal vessels causing painful cramp with transient paralysis of some segment of the intestine and consecutive meteroism. The trouble has been called "intermittent ischemic dysperistalsis" and "intermittent arteriosclerotic intestinal dysphagia." Dubious cases may be differentiated by giving tincture of strophanthus, from five to eight drops three times a day. Narcotics and other measures to soothe the pain are generally useless, but drugs that control angina pectoris may prove effectual,

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especially strophanthus and theobromin. Jaquet has reported excellent results from the use of potassium iodide or potassium nitrate, combined with sodium nitrate, the combination recommended by Sir Lauder Brunton for chronic arterial hypertension.

Hydatid Cyst of the Humerus.—Cranwell (Rev. d'Orthop.) reports two cases of hydatid cysts of the humerus. The subject of one case was a female, aged 36, and the subject of the other a male, aged 21. Hydatid cysts, it is stated, are rarely met with in bones, and in 4 only of 970 cases of hydatid disease observed in the Argentine Republic

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was any part of the skeleton affected. By this, together with other and larger tables of cases, it is shown that of the few bones in which the disease has been observed, the humerus is the one most frequently affected. With the exception of this bone, and of the femur, tibia and fibula, the long bones are very rarely, if ever attacked. Cranwell says that he has been led by his experience to the conclusion that hydatid cysts of bones usually present the unilocular form. The evolution of the growth, except in cases of acute infection, is slow and painless, and in most instances the first indication of the bone affection is a spontaneous fracture, this lesion being characterized by freedom from pain, failure to obtain crepitus, absence of ecchymosis, and non-union. Failing any indications of malignant disease, syphilis, osteomyelitis, or tabes, it is possible to establish a correct diagnosis by exclusion. In suspected cases doubt as to the nature of the disease may be removed by radiography, which in hydatic cysts of bone affords a characteristic picture. The treatment should consist in trephining the affected bone and extracting the whole of the cyst. As it is often found difficult to remove, even by energetic scraping, all the vesicles, the surgeon, after doing his best in this respect, should inject into the cavity a solution of formol and allow this to remain there for a few minutes.

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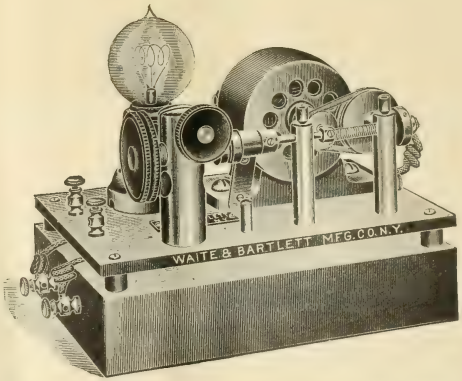

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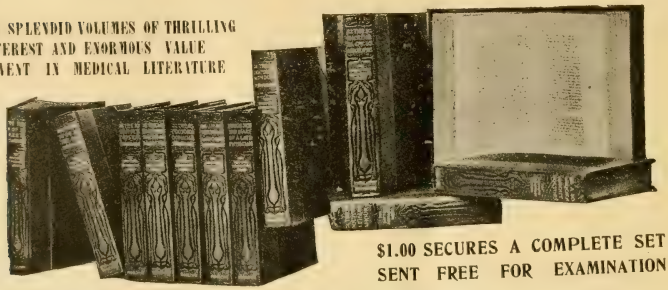

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